Reimagining Main Street Hartford: A Complete Streets Plan

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Purpose & Process



Main Street, in its current configuration, is a five-lane roadway with side-walks of varying quality and lacking bicycle facilities. This project evaluates potential retrofit designs to transform Main Street into a Complete Street for all users, vehicular, transit, bicycle and pedestrian alike. Main Street is a critical component of Hartford's downtown. Along the ¾ mile stretch studied herein, it connects neighborhoods businesses, and residents to each other. To be a success, this study must purposefully engage both the business community and residential communities along the corridor. In addition to

its transportation role, the project incorporates placemaking aspects that improve quality of life, protect public value and investment, and increase the economic viability of land and improvements in the corridor. Previously adopted plans support the City's idea to redesign Main Street to be more pedestrian- and bike-friendly. Past planning efforts are further discussed in Chapter Two.

The City of Hartford, together with the consulting team, launched a 10-month planning process to guide the development of this corridor study. The

"This is a very significant opportunity to think about how we use, interact with, and envision one of the most important streets in our City. It's a street that has a lot of possibility[...]how do we make it a Complete Street: bicycle and pedestrian friendly, conducive to foot traffic and small business? This project is a big part of that."

-Luke Bronin, Mayor of Hartford

project encompassed a comprehensive multimodal strategy (accommodating vehicles, pedestrians, cyclists, and transit users), traffic analyses and identification of deficiencies, a Complete Streets plan, concept designs, cost estimates, and a phased improvement program. Public engagement was a key element of this process, including a multi-day charrette open to key stakeholders, neighborhood leaders, and the general public, through which design concepts were proposed and considered for the corridor.











Main Street is an integral part of downtown Hartford. The study area (purple) is seen here in context.

Project Process & Timeline

The Reimagining Main Street Hartford Study was completed within a 10-month time frame. The planning process was divided into four distinct phases. The first phase, Visioning, centered on the collection of data, preliminary study of the corridor, and development of a public engagement process. During this phase, the project team collaborated with a number of individuals representing the community as well as local and state planning agencies to guide the development of the plan while ensuring the interests of all parties were heard. A project web page (www.reimaginingmainstreet.com), survey, and mapping tool were launched online to collect feedback throughout the planning process.

The second phase, Investigation, focused on analysis. Data and background information collected in the first phase was analyzed and compared with anecdotal information and data provided by early respondents to the online engagement. The first major public event, the Project Symposium, was held in May 2020 and provided direct engagement with the community, presenting the results of initial analyses.

Design Recommendation, the third phase of the planning process, began immediately following the Investigation phase. Feedback, public input, and background information were distilled and used by the project team to begin drafting the planning, engineering, and design recommendations. Much of these recommendations were developed during the multi-day charrette, a large planning event that provides hands-on activities and feedback to continually improve design concepts. During this phase, the concept design for the corridor was first developed and refined.

The final phase of this process was the Reporting & Adoption phase. Feedback gathered from the public was used while the proposed concept designs were refined through close work with committees and collaboration of professionals across fields of planning, engineering, and urban design. During this vital refinement period, every item produced came together as a unified study to guide the City of Hartford and the Connecticut Department of Transportation (CTDOT) in the coming years. An Open House presenting the final recommendations to the public was held during this period to close the project and further cement the relationship and meaningful communication between the community and the local planning agencies.

Principles & Goals

Guiding Principles

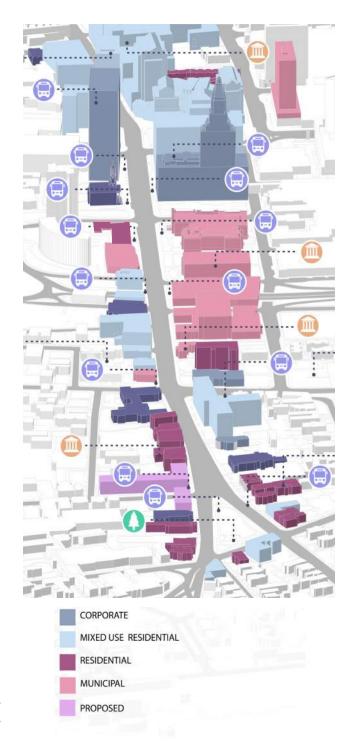
Though Main Street has some constraints, it is important to recognize that this is the entryway to the Hartford community. Like the front porch of your house, it needs to be attractive, safe and inviting. To this end, all streets serve a combination of functions, all of which are intimately tied to the travel-way, pedestrian, and building realms. The basic context zones of streets help define the role of the street and its design throughout its life-cycle. Through the stakeholder outreach, public involvement and committee collaboration, the following Guiding Principles were developed to move the design team along the planning and design process. The following core values were derived from the continuous input, opinions, and directions provided by the Hartford community:

1. Pedestrians Must Be a Priority.

Although automobile travel is substantial, the corridor is heavily used by visitors and residents of the surrounding communities. The lack of bicycle and pedestrian design elements make traversing Main Street difficult and undesirable. The vulnerability of these users is high compared to automobile drivers and passengers. It is better to create an environment where walking and biking are not only encouraged but are the priority.

2. The Safety of All Users is Critical.

When creating pedestrian-/bicycle-friendly environments, the notion that the corridor should be safe for everyone to move across and through is essential. Many of the comments received from the public invoked safety-related issues, whether it be for a lack of lighting, safety and security, wide intersections, or poor accommodations for pedestrians and bicyclists crossing the street. The most outstanding example of this is that over 55% of the Project Symposium respondents felt that Main Street is "unsafe" or "very unsafe" today. As we redesign this important corridor through Hartford we must be cognizant of key safety design features like "built in" traffic calming features, site lines, lighting and access management best practices.













Existing tree canopy along Main Street.

3. Design Main Street to Human Scale, Creating a Vibrant Street Life.

The space limitations and future redevelopment trends of the corridor itself are pushing towards better urban design and placemaking opportunities. As expressed by the public, there is a keen interest in creating vibrant, active and attractive destinations and public spaces. T Residents and tourists should feel safe and comfortable walking on Main Street at all hours. Safety measurements should be an aspect of all concept designs.

4. Right-Size Main Street.

Main Street hasn't changed for a very long time in terms of design and operations. In fact, lack of proper maintenance of infrastructure (crumbling curb & gutter, sidewalks, etc.) is evident along most of Main Street. With limited right of way and a desire to create a safe environment while maintaining traffic flow, Main Street can be transitioned into a Complete Street through repurposing asphalt and providing more space for non-motorized users.

5. The Corridor Must Support Surrounding Uses Through Attractive Design.

Main Street serves as entryway to the center of the Hartford community, historic district and commercial/retail development. Main Street is more than how fast vehicles can move through the City, it serves as a way of getting people to jobs, residential neighborhoods, has civic uses, upholds land values, and encourages favored redevelopment. Creating an aesthetic environment and enhanced beautification through the use of improved streetscaping details and repair/maintenance is vital to this objective.

The recommendations and the action items to implement these endeavors will be detailed in the final chapters of this plan and further support the principles that have guided the Complete Streets approach to Main Street.





Community Overview



Main Street looking north, with Buckingham Street and Charter Oak Avenue in the foreground.

To better understand how Main Street functions in Hartford, we must first understand its context: how Main Street came to be, and the community that defined--and continues to define--its environment.

Main Street History

The history of Hartford and Main Street can be traced to our colonial roots. Originally inhabited by the Saukiog, the Hartford area became home to a Dutch trading post in the early 1600s before settlement by members of the Massachusetts Bay Colony in 1635. During these early years the South Green was laid out as common pasture, with its southern boundary marked by the present-day Wyllys Street.

Originally residential in character, Main Street became the locus of commercial and industrial activity, and residential areas expanded westward. By the 19th century, Main Street was home to large stores, tall brick buildings, and home to banks and insurance companies for which it would become renowned. While many structures from this era no longer remain, evidence of this period is seen in the still-standing Christ Church Cathedral at Church and Main Streets. In the latter half of the 19th century, Hartford's southern boundary was extended beyond the South Green, leading to greater residential and commercial development towards south Main Street.

Modern-Day Main Street

Today, Main Street is a critical piece of Hartford's downtown and a focal point of activity. North Main Street remains a commercial hub, with Pratt and State Streets home to shops and restaurants. Southward, Main Street transitions to tall office buildings, including Travelers Tower, and institutional uses such as the breathtaking Wadsworth Atheneum. South Main Street continues to retain its residential character, and the South Green (also known as Barnard Park), although reduced in size, remains the anchor of South Main.









Demographic Assessment

Focus on connectivity and promote vibrant public spaces to attract and maintain the creative workforce essential to the innovation industry's success

South Main Street traverses the transition from Hartford's downtown core to neighborhoods immediately south, which have vibrant residential populations. Over 2,100 Hartford residents live, and a further 14,800 are employed, within the study area as of 2017. The population has not changed dramatically over the past decade, holding close to the 2,200-population figure at which it currently sits. Growth estimates show this population increasing through 2024 by 2% annually; matching housing supply and improved transportation options to this increase will be crucial to ensuring this Plan's vision for Main Street.

Residents of Main Street are multimodal commuters, taking advantage of different modes of transportation for their commute. The automobile remains the domi-

nant mode, with 57% of workers commuting either alone or in carpool via a motor vehicle. 29% of the population walks to and from work, and a further 10% take public transit. Only 1% of residents commute via bicycle, suggesting a lack of viable routes or insufficient facilities within the study area.

While many Main Street residents commute via automobile, their access to motor vehicles varies greatly. For those who own their place of residence, only 2% do not have reliable access to an automobile, whereas 27% of renters are without an automobile. As renter-occupied units comprise nearly 90% of all housing units within the corridor, this underscores the importance of reimagining and executing a truly Complete Main Street.

Figure 2.1: Selected demographics, South Main Street study area (representing residents within 1/4 mile of the corridor). Source: American Communities Survey 5-Year Estimates, 2013-2017.

Corridor Demographics

2,167 Corridor Population 1,284 Workforce Population 33.4 Median Age

Travel Time to Work



Travel Mode to Work





Bike: 1%





Previous Plan Review



Hartford's vision for itself and for Main Street are reflected in its plans and policies. Reimagining Main Street Hartford should seamlessly integrate with these guiding plans to bring the communal vision to life.

Goals of the Plans

The currently adopted plans for the City of Hartford bearing upon this study are summarized in the following pages. These plans have influenced the built environment throughout Hartford, and the Main Street corridor specifically. Each of these plans help to shape the recommendations contained herein. Though the adoption of the Reimagining Main Street Hartford Plan may not translate directly into implementation of the suggested changes, it provides a vision and guidance for successful modifications to the built environment that will help increase the quality of life, comfort, and health of residents throughout the City of Hartford.

Transformative change for roadways begins with careful, cohesive planning. Previous plans, like the ones discussed herein, support the goals Hartford aims to accomplish through this study. With each plan, common themes emerge and are woven together to form a single vision for the corridor's present and future, forming the base design recommendations in this study. These plans and studies are an outline, a guiding framework, towards an improved Main Street that truly serves all of the people of Main Street.

Selected plan document covers

Figure 2.1: Summarized goals and Recommendations from plans reviewed









Report/Plan Goals and Recommendations Hartford City Plan 2035 Create a sense of unity and pride, and soften neighborhood, city-suburb, and racial-(2020)ethnic divisions Become a healthy city with a holistic approach to addressing the well-being of individuals and families Fill vacant lots, attract new visitors, and increase residential population by 10% throughout the city · Cultivate human curiosity, wonder, and creativity in our schools and the community at large Foster the economic, food, transportation, and physical security of households Create a strong and coherent identity through place-making and marketing Strengthen neighborhood main streets and their connections to downtown and other town centers Maximize the benefits of our natural resources, from the River to trees, to improve well-being overall City of Hartford Bicycle Provide Hartford with the necessary tools for developing a low stress bicycle network that is Master Plan (2019) beneficial for all cyclists regardless of age or ability Encourage more people to choose biking as their regular mode of transportation as well as to improve conditions for those who already bike throughout the City Serve the needs of the "invisible cyclist," who represent the population of people in the city that cannot afford cars and need the flexibility offered by a bicycle **Downtown Hartford Transit** Create a transit routing plan for the soon to be open CTfastrak Circulation and Through Provide a plan for transit circulation for the City's TIGER funded Intermodal Triangle project. **Routing Study** Develop an east-west spine of transit service along Asylum and Pearl Streets creating two east-west priority transit streets, one for local and express bus service and one for the new CTfastrak busway service Relocate bus routes from Jewell and Gold Streets to Pearl Street Reduce bus service on Main Street to support a more pedestrian-friendly condition, especially in the vicinity of the Old State House and Wadsworth Atheneum Park & Main Development Improve the urban fabric of a crucial junction within the City, engage the local community Proposal Presentation (2018) through appropriate retail and commercial offerings and re-energize as well as help better connect the area to downtown and the surrounding neighborhoods · Create a better connected, dynamic neighborhood flowing with people and ideas, housing and employment, liveliness and delight Ballpark & Mixed-Use Create a pedestrian-friendly mixed-use neighborhood adjacent to downtown Development in Downtown Revitalize downtown, create jobs and spur additional new development attracted by new North (DoNo) Presentation entertainment, food and beverage, residential and commercial uses

Hartford City Plan 2035 (2020)



The Hartford City Plan 2035 lays out Hartford's vision for growth and development over the coming 15 years. The Plan envisions five specific action areas:

- 1. A sustainable environment,
- 2. A prosperous economy,
- 3. A equitable community,
- 4. Mobile transport, and
- 5. A vibrant culture.

Ten transformative projects are identified, two of which directly impact the study area:

- Bushnell South envisions new, mixed-use, mid-rise neighborhood arts and entertainment district in the area immediately south of Bushnell Park. Bounded by Buckingham Street to the south and Elm Street to the north, Bushnell South links South Main Street to the Capitol, and links Park Street with Bushnell Park.
- South End Health & Innovation District envisions a neighborhood linked by its two hospitals, connecting pedestrians and bicyclists with South Green and Bushnell Park, and reimagines Washington Street and Retreat Avenue.

Bicycling plans within Hartford include:

- 100% completion of the Bicycle Master Plan, described below
- Establish a regional bikeshare program
- Complete the East Coast Greenway segment to create a regional bicycle network
- Expand the number of bicycle racks and storage
- See 10% of workers commute by bicycle

Transit plans include:

- Updating routes and schedules
- Designate and build Bike-Bus corridors
- Expand CTfastrak north-westward and eastward
- Create bus-only and bus-priority signals to prioritize transit users
- Add 100 well-maintained smart, well-lit, safe bus shelters along busy transit routes
- Use on-demand technology for specialized transit and paratransit services

Roadway plans include:

- Adopt and implement a Complete Streets plan
- Upgrade "trident" intersections, including South Green and Albany/Main Street intersections
- Create green streets by designing streets to reduce and clean runoff, reduce heat-island effect and beautify the public realm with landscaping and trees
- Build car-sharing infrastructure to develop 25 car share stations across the city

Pedestrian plans include:

- Upgrading walking infrastructure city-wide, with better-maintained sidewalks and crosswalks
- Reduce waits and crossing time for pedestrians with curb bump-outs and signal phasing
- Install comprehensive wayfinding signage
- Connect pedestrians to the Connecticut River with safe, accessible paths from the South End, North End, and downtown

Other recommendations that pertain to Main Street include activation of public spaces with art, enhancing downtown arts assets, and expansion of outdoor dining.









City of Hartford Bicycle Master Plan (2019)

The 2019 Bicycle Master Plan provides Hartford with tools for developing a bicycle network that is throughout the city, with the goal of encouraging more people to choose biking as their regular mode of transportation as well as to improve conditions for those who already bike. The Plan explicitly focuses on vulnerable users, aiming to "accommodate all cyclists of all ages and abilities, from the 8 year old to the 80 year old cyclist," Additionally, the Plan aims to address equity concerns, hoping to serve the needs of the "invisible cyclist": those who cannot afford cars and need the flexibility offered by a bicycle.

Main Street recommendations include:

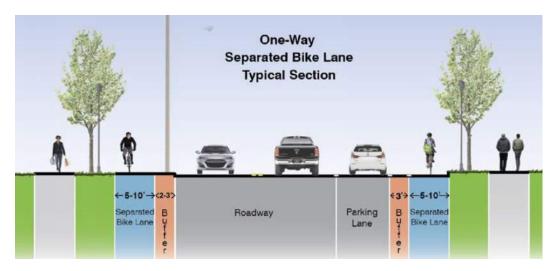
- Separated bicycle lanes. The plan proposes a 1-way paired separated bicycle lane on Main Street. The plan notes that modifications to the roadway may be costly and/or require expansion of the existing right-of-way.
- Minimum width of 5 feet (preferred width of 6 feet).
- Width may be increased up to a maximum of 10 feet on high demand/high volume corridors (greater than 150 cyclists per hour).

Although not a recommendation, the Plan notes that the intersection of Albany Avenue and Main Street has been considered as a candidate for a roundabout. Design quidance for roundabout facilities includes:

- Maximum vehicle entry speeds of 15 to 19 miles per hour;
- Sidepaths of a minimum 10 feet width provided around the perimeter of the roundabout;
- Bike ramps to the sidepath for bicyclists not wishing to navigate via the roadway;
- Transition of bike lane striping to dashes approximately 100 feet in advance of the intersection.

Commentary to the Plan notes that public feedback suggested the installation of fully-separated bicycle lanes along Main Street from South Green through downtown. Additional feedback recommended protected intersections, median refuge islands, and bus boarding islands.

Main Street from South Green through downtown should have fully separated bicycle lanes (either at street or sidewalk level), as well as protected intersections, bus boarding islands, and median refuge islands.



Proposed design guidance for separated bicycle lanes (Source: City of Hartford Bicycle Master Plan, 2019)

Park + Main Mixed-Use Development (2018)

Park + Main is a planned mixed-use development located at the intersection of Park Street and Main Street in the study area. Currently two vacant lots, the development proposal aims to improve the urban fabric of the South Main Street area through appropriate density and human-scale design, engaging the local community through residential, retail, and commercial offerings and better connecting surrounding neighborhoods to downtown Hartford.

Project details include:

- 108 apartment units
- 13,685 sqft of retail and/or restaurant space
- 6,775 sqft of co-working/café space
- 13,115 sqft devoted to residential amenities
- 9,000 sqft of roof decks
- 124 parking spaces



Rendering of Park & Main development. (Source: Spinnaker Real Estate Partners, LLC and Freeman Companies)

Downtown North Dunkin' Donuts Park & Mixed-Use Development (2018)

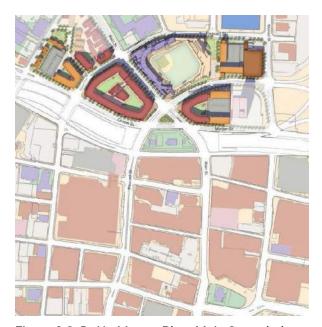


Figure 2.2: DoNo Master Plan. Main Street below.

The Downtown North (DoNo) Hartford Development project aims to create a pedestrian-friendly environment and mixed-use neighborhood in the North End of downtown. The project calls for the construction of 823 housing units, along with 19 townhomes, and varied retail across four parcels adjacent to Dunkin' Donuts Park, with the goal of revitalizing Hartford's downtown and spurring additional development in the area.

- Stadium access located near the intersections of Main Street & Pleasant Street, Main Street & Trumbull Street, Trumbull Street & Windsor Street.
- Bicycle parking located Windsor Street, with further bicycle parking proposed at Main Street and Pleasant Street. Landscaping details include bicycle racks.
- Wayfinding signage proposed around the site.
- 8-minute walkshed for the proposed development includes Pearl & Asylum Streets and identifies Main Street as a walking path to travel to and from the development.







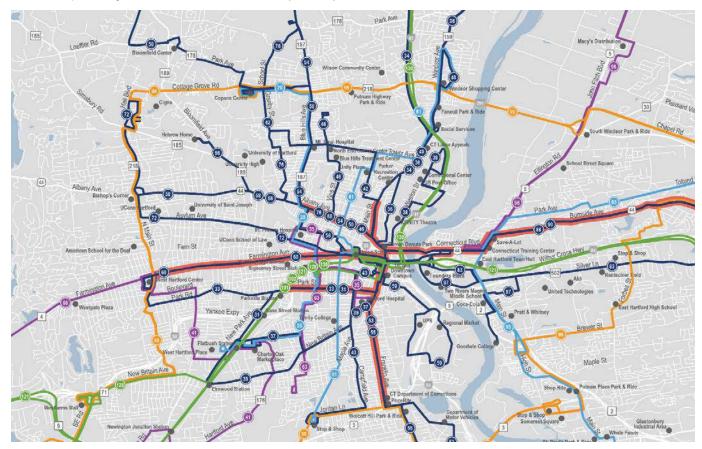


Hartford CTTransit Comprehensive Transit Service Analysis (2017)

The Capitol Region Council of Governments (CRCOG) completed a Comprehensive Transit Service Analysis (CSA) for Metro Hartford in 2017. The study provided a comprehensive inventory of transit needs and potential in the Capitol Region, including service improvement recommendations as well as infrastructure recommendations along key corridors.

Most relevant to Main Street is that the CSA identified Main Street as one of a few "Enhanced Transit Corridors" from Wyllys Street to north of Downtown. The service recommendations from the CSA, if implemented, would create very frequent transit service along Main Street and other Enhanced Corridors. The plan envisions that over time these corridors should be a focus for transit-supportive investments, providing general ideas such as transit priority treatments, stop consolidation, and enhanced passenger amenities. There are no location-specific recommendations for these treatments, and CRCOG is planning to revisit these corridors in a future planning process.

Proposed core service area map for CTTransit service in the Hartford area. Source: Capitol Region Council of Governments (CRCOG).



Downtown Hartford Transit Circulation & Through Routing Study (2013)

The City of Hartford worked with the Capitol Region Council of Governments (CRCOG) to develop a transit plan in support of the City's TIGER-funded Intermodal Triangle project. One of the main goals was to remove bus routes from Main Street to support an enhanced pedestrian environment.

Recommendations from that study relevant to Main Street include:

- Move terminating loop for CTfastrak and western buses from Main Street to reduce bus load
- Reduce time required for passengers to make connections
- Reduce the ridership load on Main Street
- Improve pedestrian conditions on Main Street
- Create bus-only space for some of today's operations to happen on Asylum Street
- Remove commuter and west local routes from Main Street
- Improve east-west routing by through routing many routes, so that routes no longer use Main Street to turn around

Additionally, the study recommended the following stop reconfigurations on Main Street:

Main Street between Gold and Central Row/Pearl Street as the main transfer point in the system, with shelters, curb extensions, and ability to accommodate dwelling buses. Maintain stops at the Library (Wells Street and Arch Street)



Downtown Hartford Transit Circulation Concept (Source: Downtown Hartford Transit Circulation and Through-Routing Study, 2013)

 Eliminate northbound stops at Wadsworth Atheneum and in front of the Old State House

The redesigned operations plan intended for Main Street to serve 32-42 buses, all local, in the PM peak hour.

However, some plans for local streets were not implemented as planned, while others have not been implemented with a changed planning context. The completed recommendations were:

- Elimination of Wadsworth and Old State House stops
- Relocation of west terminating routes from Main Street northbound
- Adjustment of stops between Gold Street and Central Row/ Pearl Street
- Some eastern routes use a turnaround loop at Union Station; other east-west route recommendations have not been implemented.

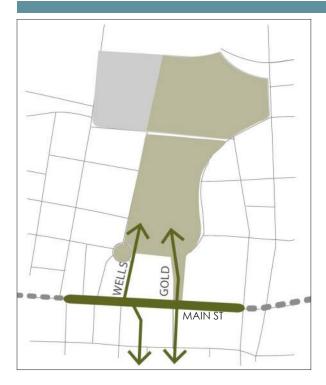








Downtown Hartford: The iQuilt Plan (2012)





Top: Main Street's role in connecting The Greenwalk. Below: The Greenwalk. (Source: The iQuilt plan)

The iQuilt Plan is downtown Hartford's formative urban design strategy for walkability and creative placemaking. The goal of iQuilt is for downtown Hartford to become the central gathering place for the neighborhoods of the city and the towns of the region: a place of streets and sidewalks alive with people; a magnet for residents, visitors, creative workers and cultural innovators; a driver of economic activity and growth; and a model of livable, sustainable urban design. The plan is split into two parts, with nine initiatives for downtown transformation as well as a Greenwalk Master Plan. Key elements pertinent to this study are included below:

- **Vibrant Streets:** the Plan calls for a network of interconnected, Complete streets that prioritize walking to emphasize community compactness and attract development and activity.
- Wayfinding: the Plan calls for wayfinding signage to help navigate the irregular street patterns.
- Make it easy to bike, run, and exercise: concurrent with Vibrant Streets, the addition of bike lanes that connect with a city and regional bike network to encourage greater use of bicycles for exercise and transportation.
- Integration of the pedestrian network with the downtown parking system.
- Improve transit usage through better signage and shelters, mapping, and schedules.

Within the Greenwalk Master Plan, specific recommendations are made for Main Street, as the Plan calls for extension of Bushnell Park to Main Street. These recommendations include:

- The transformation of Main Street into a Complete Street.
- Create a "Downtown Crossing" at Main Street and the intersection with the east/west path of the GreenWalk.
- Encourage walking and enjoyment with the addition of street trees, paving, and benches.
- Add crosswalks of made of permeable pavers, and bioswales at transit shelters and in front of key sites.
- Provide amenities for a broader range of users. For transit riders: new shelters, transit information displays, wayfinding; for cyclists: bike lanes; for pedestrians: street trees, benches, and wayfinding.
- Bump-outs at crosswalks to shorten crossing distances and encourage pedestrian use of the GreenWalk.

Main Street Road Diet Analysis

The 2019 Main Street Road Diet Analysis assessed the feasibility of adding bicycle facilities along Main Street in coordination with a planned repaving project and replacement of signal equipment between Gold Street and Park Street. Conceptual in nature, the plan simulated three alternatives:

- No-Build Alternative, which optimized existing corridor performance through new signal equipment and modernized timing for all intersections.
- Road Diet Alternative #1, a road diet with a single through lane in each travel direction.
- Road Diet Alternative #2, analyzed the same road configuration as Alternative #1, but with shorter pedestrian signal phasing made possible through construction of curb extensions.

Figure 2.3: Vehicle Speed Observations (MPH)

Traffic volumes and travel times were observed as part of the analysis. Counts were obtained from the Connecticut Department of Transportation, while travel times were observed by the project team and recorded. Key findings:

- A noticeable spike peaking around the 4:00 PM hour.
- Rather than an AM and PM spike typically seen on high commuter routes, there is a general rise in traffic throughout the day that tails off after the PM peak hour.
- Northbound and southbound counts are also consistent throughout the day, unlike commuter corridors.
- Travel times in both directions were fairly consistent on average and lasted roughly one and a half minutes.









Left to Right: Northbound and Southbound low and high observations. (Source: Fitzgerald & Halliday, Inc., 2019)









Conclusions:

- Road Diet Alternative #2 represents the best-case scenario.
- Northbound travel times decrease to 122 seconds, while southbound times increase to 129 seconds.
- Greatest improvements in level-of-service along the corridor occur between Wells Street and Buckingham Street/Charter Oak Ave, from LOS C/D to LOS A/B.
- Road Diet Alternative #2 can mitigate the negative impacts to traffic flow of a reduced cross section on Main Street.

1600	
1400	
1200	
1000	
800	
600	
400	
200	
0	
22.05	tra
	NB SB Total

Above: Hourly traffic volumes on Main Street. (Source: 2018 CTDOT Traffic Counts, Fitzgerald & Halliday, Inc.)

Control Delay Per Vehicle(s)	LOS
<= 10	Α
10 - 20	В
20 - 35	С
35 - 55	D
55 - 80	Е
> 80	F



Left: Vehicle Level of Service projection for Road Diet Alternative #1

Right: Vehicle Level of Service projection for Road Diet Alternative #2 (Source: Stantec, Fitzgerald & Halliday, Inc.,2019)









Main Street Context



Figure 3.1: Main Street Corridor and Hartford context.

Main Street's Place in Hartford

Main Street is a key corridor in downtown Hartford, the major north-south street that is the gateway into downtown. Asylum Street, the northern extent of the study area, is Main Street's east-west counterpart in the downtown area. The intersection of Asylum and Main, at the location of the Old State House, is considered the center of downtown Hartford.

The study area is a subsection of Main Street, roughly ¾ miles in length, beginning with Asylum Street at its northern limit and ending with Wyllys Street at the southern end. As one travels south, several of Hartford's historic civic and cultural elements may be found, including:

- Old State House and State House Square
- Ancient Burial Ground
- Travelers Tower Square
- Wadsworth Atheneum Museum of Art
- Hartford City Hall
- Hartford Public Library
- Burr Mall

Main Street runs south out of Hartford's central business district and passes several neighborhoods, parks, schools and churches before splitting at Barnard Park and changing names

The Old State House, at Main St and Asylum St



Traveler's Plaza and the Wadsworth Atheneum.













Above: A scooter user at Park St and Main St

Below: A car turns left onto Charter Oak Ave.



to Maple Avenue and Wethersfield Avenue. North of downtown, Main Street crosses Interstate 84 and passes Dunkin Donuts Ballpark, the Clay Arsenal neighborhood and other north Hartford areas. It is a primary transit corridor, a neighborhood spine and a backbone of the central business district.

The architectural character of Main Street at the northern end is a mix of charming historic buildings such as the Old State House, the Hartford Connecticut Trust Building, the Atheneum, and The First Church of Christ. This section of Main Street also contains several landmark buildings that can be seen from miles away such as the Travelers Tower, the Gold Building and the mid-century modern skyscraper -777 Main Street Building. The Brutalist era Metropolitan District Building and Bushnell Plaza were designed by I.M Pei, but this sequence of building and plaza effectively turned its back on Main Street, creating a somewhat monotonous pedestrian experience in this stretch of the corridor. As a counterbalance, the Beauxarts style of City Hall and its civic plaza filled with mature trees, public art and fountains creates a beautiful streetscape and sense of place to this section. From this point, the building and streetscape character along the west side of Main Street shifts to a range of two to five story buildings with ground floor retail and restaurants. This shift away from the civic and office buildings to the north creates a more neighborhood scale to Main Street with narrower sidewalks and denser, lusher street tree plantings.

Transit Stop at the Metropolitan District



Barnard Park, with Wyllys Street in the foreground.



Corridor Characteristics

Street Inventory

Beginning at Asylum, Main Street profiles as a four-lane roadway with a center turn lane. Right-of-way varies throughout the corridor, widening as one travels south to accommodate on-street parking and transit stops. An approximately eight foot lane for on-street parking and transit stops is present along both sides of Main Street. Medians, where existent, are striped and not raised with curbs. The center turn lane becomes an exclusive left turn lane at intersections.

No bicycle lanes or other amenities are present within the right-of-way and racks are scarce throughout the study area. Sidewalks, while typically wide, are inconsistent in nature. In some locations, spalling and heaved concrete create tripping hazards and pose ADA issues for people with disabilities. Severe deterioration in the concrete unit pavement can be seen along Bushnell Plaza and at the southern end of the project by the South Green. While crosswalks are present at most intersection crossings, crossing distance is significant.

The street tree canopy along Main Street is fragmented with large stretches of sidewalk without shade. Between Pearl and Gold Streets where large numbers of people transfer and wait for buses there are little to no trees to provide shade. Also, at both the Bushnell Plaza and the Atheneum there are virtually no trees, making this block very hot and sunny during the summer months. Newly planted Japanese Tree Lilac in front of Bushnell Plaza and the MDC Building will never get large enough to provide much shade in the summer months. The southern section of Main Street from Charter Oak Ave to Wyllys lacks significant shade trees.

Transit infrastructure for riders is inconsistent. There are five stops with amenities such as shelters, benches, signage, and trash bins in the northern part of the study area. Stops south of Gold Street are limited, with a sign on a pole noting where people should wait. Stops on Main Street are a mix of "near-side" and "far-side" stops. At near-side stops (Main Street and Arch Street northbound, e.g.), buses stop at the curb before a traffic signal. Overall, this slows traffic as the bus may still be loading/unloading passengers when the signal changes. At far-side stops (Main Street at Bushnell Plaza, e.g.), buses exit the flow of traffic to load and unload passengers. Most stops have a concrete pad to support significant bus traffic.

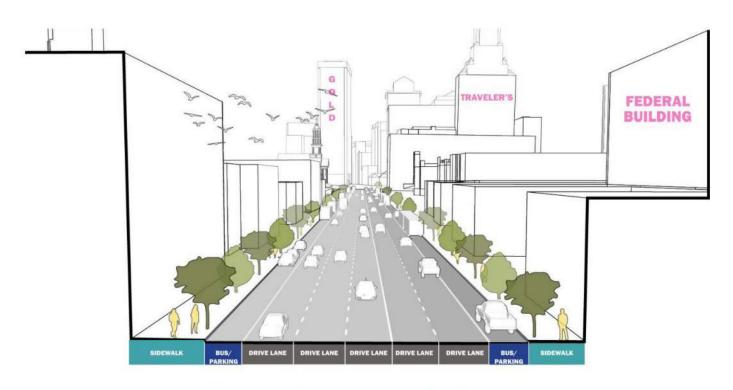












Main Street Existing Condition

Figure 3.2 (Above): Typical Cross-Section, Main Street. **Figure 3.3** (Below): Aerial image of the Main Street study area. (Source: Google Earth)



Traffic Conditions

Table 3.1: Intersection performance on Main St.

on main on			
Intersection	Peak Hour	Existing 2020 LOS	
Main St at Pearl St/	AM	D (49.3)	
Central Row (Signalized)	PM	E (67.0)	
Main St at Gold St/	AM	D (35.0)	
Atheneum Square (Signalized)	PM	D (38.5)	
Main St at Wells St/	AM	C (29.8)	
Arch St (Signalized)	PM	D (53.2)	
Main St at Elm St/	AM	B (16.2)	
Sheldon St (Signalized)	PM	B (16.8)	
Main St at Capitol	AM	B (17.8)	
Ave (Signalized)	PM	C (33.0)	
Main St at Bucking-	AM	D (37.0)	
ham St/Charter Oak Ave (Signalized)	PM	E (64.1)	
Main St at Wethers-	AM	B (18.7)	
field Ave/Park St (Signalized)	PM	C (25.3)	
Maple St/Main St	AM	D (39.4)	
at Congress St at Jefferson St/Wyllys St (Signalized)	PM	D (46.8)	
Maple St at Retreat	AM	B (14.6)	
Ave (Signalized)	PM	C (22.1)	
Wethersfield Ave at	AM	C (33.8)	
Wyllys St (Signalized)	PM	D (39.9)	

^{1.} LOS is reported as the letter grade with the seconds of delay per vehicle shown in parentheses.

Intersection Performance

Using data provided by the City of Hartford as well as field observations, capacity, queue and arterial analyses were performed on Main Street to better understand the corridor's current performance during morning and afternoon peak hours. As a critical component of Hartford's road network and downtown environment, Main Street must be inviting for all users of the corridor. Striking the proper balance entails improvements to existing traffic conditions, safety and levels of service for drivers as well as bicyclists, pedestrians and transit users.

Takeaways

- 1. Morning peak hour volumes along Main Street vary depending upon intersection. For the six intersections between Pearl Street and Buckingham Street/Charter Oak Avenue, AM peak hour occurs between 8:00 and 9:00 AM. For the remaining four intersections between Wethersfield Avenue/Park Street and Wyllys Street, AM peak hour occurs between 7:30 and 8:30 AM. Afternoon peak hour occurs between 4:15 and 5:15 PM.
- 2. Travel times during peak hour for this segment of Main Street vary depending upon the travel direction. Northbound travel times are significantly better than southbound times. In both morning and afternoon, northbound travel times average five minutes (295.4 seconds and 298.5 seconds), while southbound times range between 5.5 to 6.5 minutes (323.5 and 374.8 seconds) respectively.
- 3. Intersections operate between LOS B and LOS E, with only two intersections reaching LOS E during PM peak hours: Main Street at Pearl Street, and at Buckingham Street/Charter Oak Avenue. Poor performance in the eastbound thru-right lane at the Pearl Street intersection contributes to the lower level of service, operating at LOS F during peak hour. Both eastbound and westbound lanes along Buckingham display poor performance during PM peak hour; the westbound left turn lane operating at LOS E, and the eastbound thru lane operating at LOS F. Also, the travel time delays can be attributed to the fact that the signals are not coordinated.









^{2. ##} indicates delay longer than 300 seconds.

^{3.} Approach or movement does not exist in this scenario.

Roadway Safety

Crash Analysis

Crash analysis synthesizes crash data from state and local sources to identify problematic stretches of the road, and to provide a comparison with similar corridors. Using three - to five - year crash statistics and classification based upon injury severity, the resulting data provides a clear image of areas of concern to the project team and assists in the planning process to highlight both general safety conditions for users and areas of acute concern within the study area.

Vehicular Crashes

While Main Street generally performs like typical roadways in Connecticut with regards to crash types and severity, there is one notable difference. Based upon the 2017 Crash Facts Book published by the CTDOT, sideswipe crashes along Main Street, whether traveling in the same or opposite directions, occur at a rate two times the state average. This may be due to a number of factors, including the presence of parallel parking, high vehicle speeds, poor intersection geometry, unnecessary travel lanes, and vehicles passing to avoid transit operations.

Crash Type	Count	Percent
Head On	8	2%
Rear to Rear	1	0%
Rear to Side	2	0%
Sideswipe (Same or Opposite Direction)	132	39%
Angle	59	17%
Rear-End	98	29%
Unknown	38	11%
Total	338	100%

Table 3.2: Vehicle Crashes by Manner of Crash, 2017-2019. Source: CTDOT.

Crash Type	Count
K	1
Α	80
В	0
С	0
0	257
Total	338

Table 3.3: Vehicle Crashes by Crash Severity, 2017-2019. Source: CTDOT

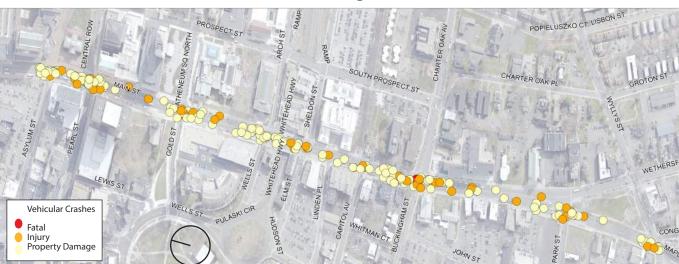


Figure 3.4: Vehicular Crashes (2017-2020)

Bicycle & Pedestrian Crashes

The pedestrian and bicycle crash data used here show the documented incidents within ¼ mile of the study area where one or more vehicles was involved in a collision with one or more pedestrians or cyclists.

While total crashes involving bicyclists and pedestrians is low, there are notable trends. First, bicycle-involved crashes have risen each year over the five-year period. This may suggest that conditions are growing more dangerous, or that there are more cyclists using Main Street. Second, crashes are largely clustered at intersections, with midblock pedestrian crashes occurring near transit stops. The highest concentration of pedestrian crashes occurs at Main Street and Pearl Street, near to the transit stop located at this intersection.

While data suggests there is low danger to cyclists along the corridor, it is open to interpretation. Low crash statistics can also infer that low numbers of bicyclists and pedestrians use Main Street. The lower usage along Main Street may be due in part to perceived danger, lack of attractions or destinations, lack of amenities, and lack of infrastructure to support safe cyclist use. Coupled with feedback received during public outreach, this data leads to the conclusion that Main Street's current design deters bicycle and pedestrian use of the corridor.

Year	Pedestrian Crashes	Bicycle Crashes
2015	8	1
2016	7	2
2017	12	2
2018	4	3
2019	5	5
Total	36	13

Table 3.4: Bicycle & Pedestrian Crashes on Main Street, 2015-2020. Source: CTDOT.



Cyclist forced into drive lane due to lack of dedicated space.

Figure 3.5: Bicycle & Pedestrian Crashes (2015-2020)











Multimodal Level-of-Service

Multimodal Level-of-Service (MMLOS) measures and categorizes the level of service for multimodal transportation options into a hierarchy based on the corridor's characteristics. Taking into consideration traffic speed and volume, signals and phasing, bicycle and pedestrian facility prevalence and type, and transit amenities from both state and local sources, MMLOS analysis aggregates and synthesizes this data to create hierarchy of the roadway users' perceived satisfaction with the facility. The resulting grades, from "Poor" to "Very Good," provide a clear and composite image of areas of concern along the corridor for all users. vehicular and pedestrian. As a conceptual tool, MMLOS helps the planner and consultant to determine needs and prioritize among competing alternatives in planning and decision-making.

Pedestrian Level-of-Service

Figure 3.6 below depicts the current level of service for pedestrians along Main Street. Conditions are inconsistent throughout the corridor. North of Wells Street, Main Street provides safe and wide sidewalks and high quality, generally consistent street tree canopies to provide shade and physical separation from travel

lanes. Additionally, the built environment adjacent is of higher quality and more engaging to the pedestrian realm. South of Wells Street, the pedestrian level-of-service declines dramatically. Street trees become sporadic and of poor quality, sidewalks become cracked, broken, and unmaintained, and pedestrian amenities such as benches, disappear. Crosswalks, while generally present at most intersections, feature large crossing distances, challenging for vulnerable users.



Sidewalk conditions, Main Street.

Figure 3.6: Existing Pedestrian Level-of-Service

Level of Service for pedestrians declines as the user travels south. Conditions are somewhat better for users on the east side of Main Street. Source: City of Hartford, CTDOT, ARTPLAN (Florida Department of Transportation).



Bicycle Level-of-Service

Conditions for bicyclists along Main Street are poor as shown in Figure 3.7 below. Vehicle volumes and speeds along the corridor warrant separated bicycle facilities to provide improved levels of service for non-motorized users. Along Main, bicycle lanes are non-existent, with only a few dedicated lanes in side streets to support travel within the study area. There are bicycle racks present in various location along the corridor, but without dedicated facilities, bicyclists cannot access destinations along Main Street in a safe and comfortable manner. As noted during public outreach, the lack of sufficient bicycle facilities along Main Street leads users to seek other routes to facilitate north-south travel through the study area.



Main Street lacks adequate bicycle facilities.



Uncomfortable proximity to vehicles.

Figure 3.7: Existing Bicycle Level-of-Service

Lacking bicycle facilities, conditions for bicyclists on Main Street are poor. High vehicle speeds contribute to poor Level of Service. Source: City of Hartford, CTDOT, ARTPLAN (Florida Department of Transportation).











Transit Conditions

Introduction

Main Street is a vital transit corridor that serves commuters, those frequenting Downtown and those traveling through Downtown. The corridor functions as a "hub" in Hartford's system, meaning it is where many bus routes meet, creating the opportunity to transfer. Transit service along the corridor is provided primarily by CTtransit, which operates local routes and CTfastrak.

Service on Main Street

There are 18 active stops in the project area, with over 40 routes on a typical weekday. Today, these routes include local routes, commuter routes, and CTfastrak, CTtransit's Bus Rapid Transit (BRT) line.

Many of the north-south routes are "interlined" such that



Buses stopped in a line near Pearl Street. Idling buses along Main Street impact the overall street environment.

a route comes in from the north as one route and then leaves heading south as another, thus not needing to turn around.

However, in addition to north-south routes, several CTtransit routes that run west from Downtown, including CTfastrak, and some express routes, turn around on Main Street, adding to the as bus traffic that Main Street must carry. Additional express routes use Main Street during certain times of day. As the map on the following page shows, this leads to a concentration of service - and waiting buses - on Main Street, particularly between Asylum and Gold Streets.

The corridor does not have any amenities to support transit on - time performance, such as transit signal priority or queue jumps, at this time. Buses instead run and stop mixed with vehicle traffic, with the exception of space for bus stops.

However, although there are limited transit-specific amenities on the street between the curbs, buses that run the length of the corridor today generally run on schedule. For example, data from October 2019 shows that the average weekday bus trip between the southern part of the study area (Main Street at Park Street) and the northern part (750 Main Street) is typically a few minutes faster than the scheduled run time.

Ridership

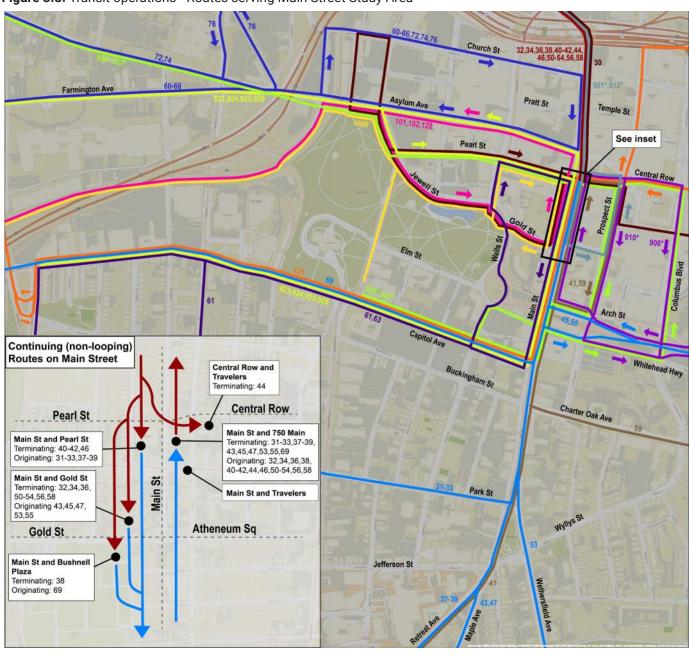
Ridership along Main Street is consistent throughout the day, with slight increases during the morning and evening peak hours and an average of over 11,000 people boarding buses on the corridor each day. The bus stops between Pearl and Gold Street/Atheneum Square are the highest ridership stops, with a few thousand people boarding and alighting on a typical weekday in this area. In particular, the east side of the street sees a concentration of ridership in this block. These stops do have shelters and benches, but these crowds may at times block the sidewalk or access to

local buildings. Overall, with several hundred people boarding and alighting buses on the corridor each hour throughout the day, the sidewalks may seem crowded to those traveling along the corridor, particularly those walking.

The 2009 Downtown Hartford Circulation Study found that nearly two-thirds of riders using transit downtown are transferring, and while operations and ridership patterns may have changed since then, transferring is still a

significant need on Main Street. The majority of the over 40 routes that travel on Main Street terminate on Main Street, meaning that for many riders Main Street serves as a downtown connection on a trip requiring multiple routes. CTtransit's policies and operations are set up to encourage transferring; transfers between local routes are free and unlimited for riders. Interviews with stakeholders suggested that both the current bus operations and the difficulties of crossing Main Street on foot make these transfers challenging.

Figure 3.8: Transit operations - Routes serving Main Street Study Area











Bus Presence on Main Street

Because so many routes come together on Main Street, buses waiting at the curb are a near constant presence, which impacts the street environment. Dwell time represents the actual time between a bus' arrival and departure at a stop. Average dwell times for buses on Main Street during the day are approximately two to three minutes. With the large volume of buses on the corridor, these dwell times can overlap and create an environment with multiple buses sitting at the curb. While some of the dwell time is due to passenger loading, buses are not always actively loading/unloading passengers. About a third of buses arrive at their stop prior to their scheduled departure times, and thus likely dwell to remain on schedule. Other factors that contribute to dwell times include waiting for transferring

passengers, use of wheelchair ramps, or vehicle traffic preventing the bus from departing. Evening dwell times are longer, with averages ranging from 4-5 minutes at 7:00 pm to over 10 minutes at 9:00 pm, as buses wait to facilitate transfers during the "pulse" period on Main Street

An example of how the number of buses and their dwell times contribute to the street environment is shown below. Between Gold Street and Central Row, the combination of bus volumes and dwell times means that there is almost always at least one - and sometimes up to six - buses sitting at the curb in the morning between 8:00 and 9:00 am. CTtransit's fleet at this time is a combination of diesel and hybrid buses, so for people walking, biking, or even waiting for other buses, this can create an unpleasant environment.

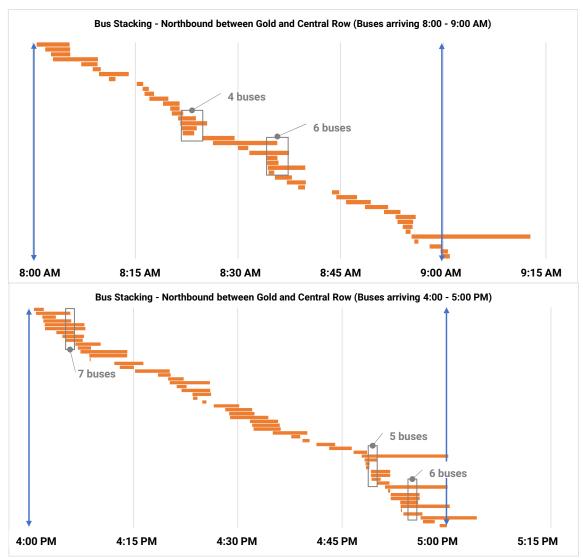


Figure 3.9: Sample bus dwell times and stacking along Main Street, 8:00 - 9:00 AM and 4:00 - 5:00 PM.





HARTFORD, CT// RE-IMAGINING MAIN STREET **Public Engagement Strategies** INTERACTIVE **Online Survey** Respondents SIGN WORKSHOP Responses FOCUS INTERVIEWS ERENCE

The Importance of Engagement



Public engagement plays an integral role in any design or study. A diversity of perspectives helps to reframe the project team's view of the issues and provide better suggestions for improvement. Without their help, this vision is never defined and never realized.

The Importance of Engagement

Public engagement plays an integral role in any design or study, as their results will impact the daily lives of community members and local businesses. Planning for a community of any size is not as successful as planning with the community; meaningful engagement means stronger results, tighter community bonds, and its implementation is more widely supported. Furthermore, engagement provides invaluable feedback to planners, engineers, and designers regarding current conditions and problems that might not be fully understood looking at data alone; the human element and a diversity of perspectives helps to reframe the project team's view of the issues and provide better suggestions for improvement.

In the Reimagining Main Street planning process, public engagement occurred in all four phases. Despite a global pandemic restricting interpersonal interaction, public outreach included virtual engagement with committees of citizens, business owners and elected officials, a project website, an online survey and interactive mapping exercise, public symposium, a design workshop, and an open house to present the final recommendations. By providing points of engagement throughout the process, residents were encouraged to stay involved and keep up with the project, with the intent that they would see their feedback and conversations come to life in the final recommendations of this Study. Without their help, this vision would never be defined or realized.

Impacts of the COVID-19 Pandemic

During the development of the Reimagining Main Street Hartford Plan, our world, nation, and community were struck by the COVID-19 Pandemic, an unprecedented moment in history with profound implications on traditional means of public engagement. Due to the pandemic, our daily routines were brought to a grinding halt. Stay - at - home orders, school and business closures, and working from home became the new normal for Hartford residents. Social gatherings were restricted with limitations on types of events and attendance, or outright banned, in order to limit the spread of the coronavirus. Large public meetings, such as the project symposia and design charrette, as well as small gatherings, such as advisory committee meetings and stakeholder interviews, would need to find new formats in order to engage the public meaningfully in the planning process.

Like our community, this Plan adjusted to the new normal and shifted traditionally in - person means of outreach into the virtual realm. Coupling new online capabilities, such as Zoom and Conceptboard, with familiar methods of online engagement such as interactive web mapping and surveys, virtual public engagement stepped up to meet the needs of this project during a challenging time.



Ned Lamont orders workers at 'nonessential' businesses to stay home during coronavirus outbreak

By ALEX PUTTERMAN and CHRISTOPHER KEATING HARTFORD COURANT | MAR 20, 2020















Advisory Committee

At the beginning of this process, the City of Hartford worked with the project team to create an advisory committee that would lead the progress of the plan. This team was crucial in the development of recommendations and the success of engagement that drove the project. This core group of community members, professionals, agency representatives, and advocates worked closely with the Stantec Team throughout the planning process to set the meeting and engagement schedule as well as deadlines. The team met or held conference calls regularly during the project process to stay up - to - date and on schedule during all phases of the project.

The Advisory Committee served not only as a project oversight committee, but also as a decision - making entity throughout the life of the project. They helped to provide venues for sharing information, raised and discussed ideas, increased overall community

participation, identified other stakeholders for focus groups, fostered communication between the community and the project team, focused and provided resources, helped to set a direction and priorities, and vetted the plan recommendations and action plan. They were present every step of the way to provide their local and specialized knowledge to the project team and were consistent in their advocacy for Main Street.

Members

Hartford Chamber of Commerce Hartford Parking Authority Hartford Public Library **CTtransit** iQuilt Partnership Travelers Transport Hartford 750 Main Street South Downtown Neighborhood Revitalization Zone Hartford Hospital Shelbourne Hartford Frog Hollow Neighborhood Revitalization Zone Southside Institution Neighborhood Alliance Hartford Department of Public Works Hartford Department of Development Services Connecticut Department of Transportation Hartford Business Improvement District Capitol Region Council of Governments

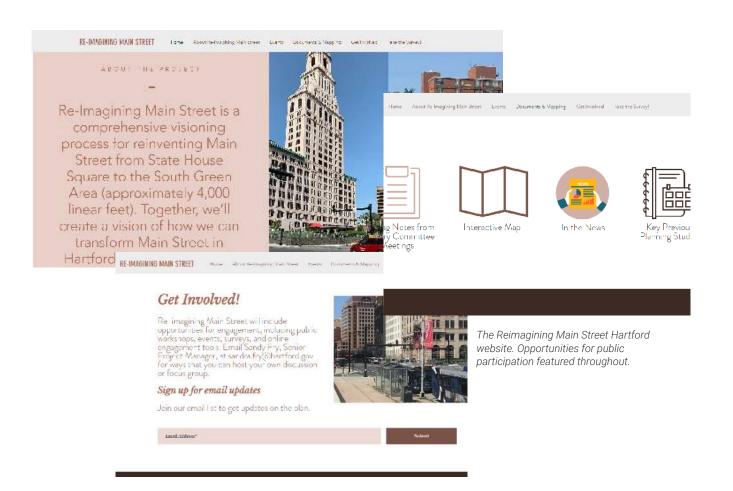
Online Engagement

Website

Early in the process, the Reimagining Main Street website (www.reimaginingmainstreet.com) was created so residents, property owners, business owners and other stakeholders could access information and provide input on the discussions surrounding the corridor study. The website featured pages dedicated to explaining the purpose of the project, the dates and locations of upcoming meetings, meeting results, related documents and images produced, photo albums of events, and ways to get involved with the project. Visitors were invited to stay updated on the project events through subscribing their email address for updates. Ahead of major public events, email blasts

were sent out to subscribers alerting them to updates to the website and new event postings. When combined with the publicizing efforts by the City of Hartford as well as local news organizations, hundreds of people were able to hear about the Main Street Corridor Study while it was being developed.

Among the ways to get involved were an online survey and an interactive map tool. The survey and map were open for interaction for several months and closed when the design recommendations were completed. The results were left viewable on the website and are documented in the digital appendices of this report. Summaries of both are shown herein.











Online Survey

The online survey is a core tool for virtual public engagement, gathering public opinions, attitudes, and insights regarding a project's goals, objectives, and recommendations. The responses gathered throughout the planning process provide feedback to the planning team on the public's attitudes towards the project, specific areas of concern, and act as a guide for the study's transportation and land use recommendations.

Developed concurrently with the web map and website, this Plan's survey featured a set of 10 questions related to travel conditions, development, and safety along Main Street. Respondents were given the opportunity to voice concerns and rank priorities for the corridor, both online

and through participation in public meetings. Major take-aways are summarized here in the infographic on the following page.

Visual Preference Survey

Similar to the online survey, the Visual Preference Survey gathers opinions and attitudes regarding the public's aesthetic preferences and desired design elements. The responses gathered throughout the planning process provide feedback to the project team on the public's attitudes towards the corridor, specific physical treatments, and act as a guide for the design recommendations contained within the final Plan. Major take-aways are summarized below.

Placemaking Elements



Crosswalk Treatments



Sidewalk Elements



Intersection Treatments



On-Street Bike Facilities



Protected Bike Facilities



Traffic Calming



Transit Amenities



Pedestrian Safety





of respondents do not feel safe on or along Main Street How do you typically use | Main Street?

Over **50%** of respondents stated that they use Main Street to travel to and from work, as a destination to meet friends and family, and as a destination for shopping and errands.



of respondents do not have access to a vehicle

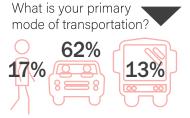
What are the primary problems along Main Street?



Poor Development (design, location, etc.) (19%)



Hard to get around on foot or bike (I feel unsafe) (15%)



What best describes the destination or businesses you frequent the most on or near Main Street? (Pick Three)





Safety/Crashes

(13%)



Respondents rated their satisfaction with various aspects along Main Street. The results have been averaged. 1=Satisfied, 5=Dissatisfied







Street Aesthetics and Landscaping: 3.94 Commerical/Retail Choices: 3.84











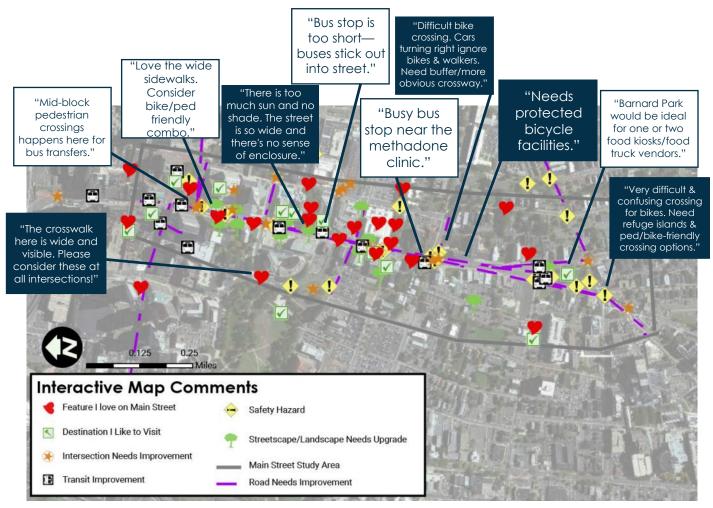




Interactive Web Map

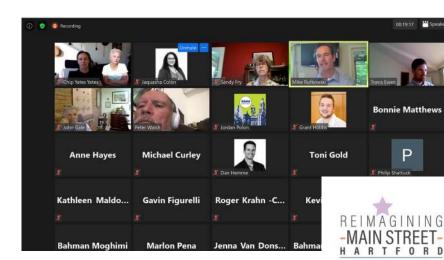
To complement the electronic survey, a web-based crowd sourcing and mapping tool hosted by ESRI Online was tailored to Hartford to gather and calibrate public knowledge on improved and additional transportation infrastructure. Users accessed the tool through the project website and pinpointed where problem areas and/or improvement potential are located. After selecting from a short list of point types, users were

able to leave a comment to explain their take on the issue or potential solutions. Other users were then able to up - vote this data point and could leave additional comments. This tool is invaluable to the project team, as residents are able to ground their comments and ideas to georeferenced data, providing the project team with the exact location of where their concern was located and description of the problem. The data received aided the prioritization process and identified places where bicycle and pedestrian improvements were needed.



Map 4.1: Comments received on the Reimagining Main Street interactive map. .

Public Meetings



Participants in the first Public Symposium session, held May 21st.

Virtual Symposium

The Virtual Public Symposium, held online via Zoom over two sessions, was the first large-scale public meeting for the Reimagining Main Street Hartford Plan. Approximately 70 members of the community were in attendance between the two online events, along with news organizations reporting on the event. During this meeting the project was introduced, with conditions inferred from data analysis and discussions with the Advisory Committee, and preliminary analysis done by the project team was presented. A survey was given to the audience, and with instant polling the results were shown in real time, giving everyone the opportunity to see what they said as a community. During this portion of the presentation, members of the community were asked to qualify their answers with their reasoning, allowing everyone to see the perspectives of others in the room. These discussions were guided by the project team, though discussion was largely between members of the public. Doing so allowed attendees to discuss the corridor how they wanted to, focusing in on areas they cared about the most, or detailing issues that they felt were most pressing, and coming up with solutions that could be implemented to improve the street.

Re-Imagining Main Street is a comprehensive visioning process for reinventing Main Street from State House Square to the South Green Area. We are calling on everyone who walks, bikes, rides, and drives on Main Street to join us for the first public meeting. Together, we'll create a vision on how we can transform Main Street in Hartford into a great complete street!

Due to Covid 19, TWO ONLINE Sessions will be offered. Pick one that fits your schedule. We will be offering a lunchtime weekday session and an evening session. We look forward to hearing from you!

Visit www.reimaginingmainstreet.com for more information or reach us at sandra.fry@hartford.gov or (860)-757-9222

WHERE:

PROJECT Online! Follow the link below to register for a session - REGISTRATION IS REQUIRED SYMPOSIUM

https://linktr.ee/hartford

WHEN: Two Online Sessions - Pick 1 that fits your schedule.

Session #1 - Thursday 05/21/2020 Time - 12:00 - 1:30pm

Session #2 - Thursday 05/21/2020



The flyer above advertising the Symposium's sessions was distributed online over social media to reach a broad spectrum of Hartford.









Design Workshop

The workshop, held in early September 2020, was the biggest and most coordinated push on the project. It included three formal virtual public meetings, effort from every member of the Advisory Committee and the entire project team as part of a three day intense design and engagement effort. This was held from September 1st to 3rd online via Zoom and Mural, where the project team, consisting of planners, urban designers, landscape architects, and engineers worked in a collaborative online environment, producing much of the design and graphic work for the recommendations of the project.

Public-facing work sessions were held regularly throughout the three-day workshop to present concepts and receive feedback from stakeholders and the public. Morning sessions with stakeholders allowed the team to drill down into nuances of design and its effects on targeted groups, such as corridor business owners and emergency services. Three public pin-up sessions were held each evening, wherein the entire public was invited to attend. Here, the proposed design concepts were presented, and questions could be asked by any attendee. This feedback was documented and taken back to the drawing board, where the design team could digest information received and innovate on the concept, or change it completely.

Some of the results of the visual preference survey are viewed here, and directly influenced the recommendations detailed in Chapter 6. During the final meeting, the public was able to view the resulting work produced out of the charrette and see how their feedback was incorporated in the conceptual designs and renderings. Following this meeting, everything produced during the week was viewable on the project website.

Proposal would transform Main Street in downtown Hartford by adding a roundabout, cycling lane, medians

and more

COMMUNITY

HARTFORD



A rendering shows one possibility for a redesigned intersection of Park and Main streets, including a circular roundabout north of South Green-Barnard Park and a cycle track. The white structure represents the future Park and Main apartment development, (Rendering by Stantec submitted by the city of Hartford)

HARTFORD — Downtown Hartford's broad Main Street may be transformed with a roundabout, two-way lane for

Open House

The final public meeting of the planning process, the Open House, was held November 19, 2020. With the COVID - 19 pandemic worsening at the time, the meeting was held, like others, over two virtual meeting sessions on the Zoom platform. Nearly 50 community members attended the two sessions, providing excellent feedback on the final design as well as recommendations for implementation and phasing of the project's completion.

The Open House allowed for community members to meet the project team, other stakeholders, and to view the final concept design for Main Street. While much of the design was completed during the Design Workshop, the project team continued to refine the ideas afterward into the complete vision.



Comments on the Concept Design











Key Takeaways

The planning process for Reimagining Main Street Hartford engaged the public throughout the planning process both to understand current challenges and opportunities throughout the study area, formulate design concepts and subject them to scrutiny, and refine the ultimate recommendations borne of this study. Stakeholder discussions, online engagement, and virtual public meetings created an umbrella of means of participation, which brought together a diverse population of Hartford residents and community stakeholders who use and interact with the Main Street corridor routinely and in unique ways.

From this engagement, a select number of important issues and observations repeatedly become the subject of conversation, survey response, or map commentary. These issues, summarized below, represent the key takeaways from public engagement:



A cleaner Main Street is a better Main Street.
Streetscaping is a must.



Main Street's priorities need some rebalancing to emphasize bicyclists and pedestrians, and vulnerable users.



Safety extends beyond the curb. Slow vehicle speeds, but add pedestrian lighting.



Better commercial options, like restaurants and retail, are needed to get people back on Main.

Guiding Principles

Although this study's Guiding Principles were laid out in Chapter 1, it is worthwhile to revisit the Principles once more at the end of the public engagement process. Intended to reflect the core takeaways both from quantitative analysis of the corridor as well as the many insights drawn from the broader Hartford community, these Principles guide the concept designs and recommendations in the chapters to follow.

Pedestrians Must Be a Priority.

It is better to create an environment where walking and biking are not only encouraged but are the priority.



Safety of All Users is Critical.

When creating pedestrian- and bicycle-friendly environments, the notion that the corridor should be safe for everyone to move across and through is essential.



Design Main Street to Human Scale, Encouraging a Vibrant Street Life.

Create vibrant, active and attractive destinations and public spaces that are open to everyone to enjoy safely.



Right-Size Main Street With Maintainable Infrastructure.

Repurpose asphalt, give Main Street a facelift, and providing more space for non-motorized users by modernizing design and materials.



Support Surrounding Uses Through Attractive Design.

Main Street is the gateway to the center of Hartford. An attractive environment encourages activity, economic development, and civic participation.













Complete Streets

Complete Streets are streets designed for everyone. According to the National Complete Streets Coalition: "They are designed and operated to enable safe access for all users, including pedestrians, bicyclists, motorists and transit riders of all ages and abilities." A Complete Streets version of Main Street would make it easier to cross the corridor, walk to businesses, and bike to and from locations along the corridor without feeling unsafe. These improvements would be beneficial to everyone from children and the elderly going to church, students walking to and from the university, and residents and visitors making a day at the Wadsworth Atheneum and nearby restaurants.

Depending on one's perspective, Complete Streets may be viewed as welcome relief or pause for concern. Drivers who are accustomed to automobile-dominated development tend to see Complete streets as an idea guaranteed to take away valuable travel lanes for what is perceived to be seldom-used bike lanes and bothersome parallel parking.

In truth, Complete Streets is not a one size fits all approach; a Complete Street redesign of an existing roadway must be tailored to existing and future travel demands, surrounding development

"A Complete Streets policy contributes toward the safety, health, economic vitality, and the quality of life in a community by providing safe, convenient, efficient connections between home, school, work, recreation, and other destinations."

 City of Hartford Complete Streets Policy, Sec. 31-301(b)

and land use, and to that specific town or community. What an enacted complete streets policy might look like in a small beach town is going to be different from that of a dense, urban center, and it should be. The same can be said for complete streets in the same town or city. For example, what might work along Park Street might not be feasible along Main Street.

Complete Streets considers every aspect of the roadway, from the perspective of both policy and the physical construction. It is not just about what occurs between curb to curb; it matters what happens between and behind the walls of the buildings facing the street. The National Complete Streets Coalition lists the proven benefits that have been documented in communities across the country and many of them can be achieved with what comes down to common sense design practices. A street that becomes safer to walk along and cross is a street where kids can walk to school safely, older adults can retain independence if their driving

ability is impaired, and more people can comfortably walk. This can be accomplished by improving the conditions on the roadway with facilities like widened sidewalks, protected crosswalks, street trees, and pedestrian lighting.









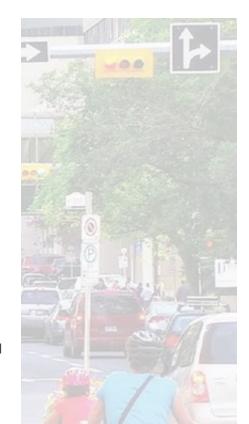


Principles of Complete Streets

Complete Streets are streets for everyone: people who walk, wheel, bike, take transit, or drive. They are designed to be safe, attractive, comfortable, and welcoming to people of all ages and abilities.

There is no singular prescription for a Complete Street, as each is unique to its community and sensitive to its context. A complete street may inloude sidewalks, bike lanes, transit priority lanes, accessible public transit stops and shelters, median islands, curb extensions, roundabouts, and more. How a street is "completed" is unique based on numerous variables including, but not limited to, surrounding community context, role of the street in the overall network, and the traffic volume for all travel modes. A complete street in a rural setting may look completely different than one in a downtown urban environment, such as Main Street.

Complete Streets can exist in neighborhoods of all shapes and sizes; from Frog Hollow to Clay Arsenal and in more residential neighborhoods such as Behind the Rocks, Blue Hills, and South West. Complete Streets design principles ensure that streets are consistently designed for their context and users, and that they operate safely for everyone.



A Complete Street:

- Accommodates all users and allows for efficient and high quality travel experiences
- ■Provides travel options for users of all ages and abilities that are safe, universally designed, context sensitive, and operable in all seasons (including winter)
- Adapts to accommodate the needs of the present and future
- Contributes to the environmental sustainability and resiliency of the city
- Considers both direct and indirect costs in planning and design, as well as the value of the public right of way and the adjacent real estate
- ■Is a vibrant and attractive people place in all seasons and contributes to an improved quality of life

Typical Complete Streets Bicycle & Pedestrian Treatments

WIDEN CURB/PAINTED SIDEWALK (TEMPORARY)

- NACTO describes an extruded curb to buffer pedestrians
- Painted curb lines are often used on neighborhood streets, but should be considered temporary and signed or plant gateway curb extensions at each intersection to caution and protect pedestrians and motorists
- Construct a permanent sidewalk as funds allow

CURB EXTENSIONS / EXTRUSIONS / BULB-OUTS

- On-Street parking should extend 1' to 2' beyond edge of curb line
- Useful as gateways to caution motorists of changing conditions, speeds, or levels of pedestrian activity
- Combine curb extensions with stormwater mitigation. measures such as bioswales, rain gardens

INTERSECTION CROSSWALKS

- Striped crosswalk (continental/piano key style) at an intersection where none exists or - in a few places midblock, where pedestrian demand can be expected
- Extend bike lanes through intersection with green paint or "elephant's feet" markings to increase visibility and show conflict points for through and turning vehicles

RECTANGULAR RAPID FLASHING BEACON (RRFB)

- Separated, on-street bicycle facility that can be one-way or two-way, and separated from sidewalks as well as motor vehicles
- Offers a higher level of security than bicycle lanes
- Consider sight lines at intersections, protected phasing for bicyclists to mitigate conflicts

CYCLE TRACK

- Separated, on-street bicycle facility that can be one-way or two-way, and separated from sidewalks as well as motor vehicles
- Offers a higher level of security than bicycle lanes
- Consider sight lines at intersections, protected phasing for bicyclists to mitigate conflicts

PAINTED BIKE LANES

- Useful for conflict points such as on-street parking door swing areas, intersection approaches, turning areas, and busy driveways
- Highlights use of space, slows traffic, discourages illegal parking
- Budget for additional, minor maintenance costs

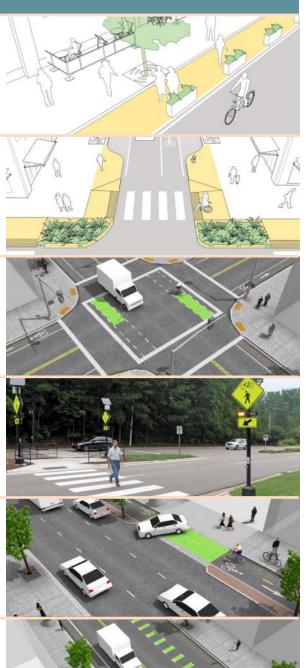
Bicycle and pedestrian design treatments common to Complete Streets projects that may be implemented along South Main Street. Specific concept designs incorporating some of these treatments may be found in Chapter 6 of this Plan. Source: FHWA Urban Bikeway Selection Guide, NACTO, Pedestrian & Bicycle Information Center.













Building Great Streets

Health, schools, taxes, traffic, the environment, economic growth, fairness, opportunity—many of the things we care about—are all affected by development decisions. What, where, and how we build have major impacts on our personal lives, our communities, and our nation.

Growth presents a tremendous opportunity for progress. Communities around the country are looking for ways to get the most out of new development and to maximize their investments. Hartford is no exception and has been making efforts to outline how the city and its neighborhoods want to grow and develop.

Frustrated by development that requires residents to drive long distances between jobs and homes, many communities are challenging rules and policies that make it impossible to put workplaces, homes, and services closer together. Many communities are questioning the fiscal wisdom of neglecting existing infrastructure while expanding new sewers, roads, and services

Growth is smart when it gives us great communities, with more choices and personal freedom, good return on public investment, greater opportunity across the community, a thriving natural environment, and a legacy we can be proud to leave our children and grandchildren.

into the fringe. And in many communities where development has improved daily life, the economy, and the environment, smart growth principles have been key to that success.

When communities choose smart growth strategies, they can create new neighborhoods and maintain existing ones that are attractive, convenient, safe, and healthy. They can foster design that encourages social, civic, and physical activity. They can protect the environment while stimulating economic growth.

Most of all, they can create more choices for residents, workers, visitors, children, families, single people, and older adults—choices in where to live, how to get around, and how to interact with the people around them. When communities do this kind of planning, they preserve the best of their past while creating a bright future for generations to come.

Hartford has been making an effort to grow smarter in recent years. Many of the themes expressed in the 2035 City Plan express these smart growth principles, albeit in different terms. With the City's focus turned to Main Street, the recommendations that come forth from this planning effort will help to steer development along and around this key corridor. Hartford's themes, expressed through the Principles of Smart Growth listed here, provide the next building blocks for the vision the City continues to construct.

Create Walkable Communities

With neighborhoods at Main Street's southern end and destinations throughout, Main Street should perform for residents walking or biking Bushnell Park or the Wadsworth Atheneum, folks catching the bus at Gold Street, and those who live nearby. While Main Street may have developed to support pedestrians, 20th century developments produced the automobile-oriented corridor as it is today, and its current design is not conducive to walkable, bikeable, vibrant placemaking. Other pedestrian-friendly features must be present, such as an appropriate mix of densities and uses, compact street intersections, and neighborhoods that are scaled to people. This isn't limited to infrastructure, however: merely building bike lanes and sidewalks is insufficient to transform streets. Concurrent with infrastructure, city policies and zoning must support residential and business growth that encourage people to get on the street.

Provide a Variety of Transportation Options

The science of traffic management and prediction has begun to catch up with what citizens have observed for years: new road capacity fills up almost as fast as it is constructed. Known as "induced demand," studies now show that as large new roads are built, people increase their driving to take advantage of the new infrastructure, with some suggesting between 60 and 90 percent of new road capacity is consumed by new driving within five years of the opening of a major road. People may switch from using transit and carpools to traveling on the new road, and in the long term, increased accessibility of the surrounding land shifts development patterns to create more growth and new traffic in the area.

In response, communities like Hartford are beginning to implement new approaches to transportation planning, such as better coordinating land use and transportation; increasing high-quality transit service; testing of new technology like connected vehicles, creating resiliency and connectivity within their transportation networks; and ensuring connectivity between pedestrian, bike, transit, and road facilities. They couple a multimodal approach to transportation with supportive land use patterns that create more transportation options. Hartford's City Plan explicitly calls for these new approaches when it seeks to make streets more walkable and connected, increase access to safe bicycling, and improve its multimodal network. Concept designs and supportive policies in this Study move such plans from idea to reality.

























Preserve Open Space, Natural Beauty, and Critical Environments

City parks play a vital role in the social, economic and physical well being of Hartford residents. As cities become more densely populated, and concern about the impact of climate change increases, planners, elected officials, and community advocates are taking a fresh look at parks and their potential to help address critical urban infrastructure and public health issues. The South Green (aka Barnard Park) has untapped potential in providing access to vital open space for the surrounding neighborhood. Traffic isolation and long-deferred maintenance has resulted in failures in hardscaping, decorative fencing and other key park elements. The bus stop locations at the northern tip of the park are poorly designed and do not have the infrastructure, operations or maintenance to handle the level of pedestrian traffic, resulting in an unkept and deteriorated public realm for transit users and visitors to the park.

Revitalize the park to reflect its historical past as one of the first City parks in Hartford as well as looking towards the future for creative ways to activate the park through thoughtful programming to encourage the community to take advantage of this resource. Parks are now recognized as powerful tools for urban communities and local economies. Investing in open space and city parks supports smart growth goals by bolstering local economies, preserving critical environmental areas, providing recreational opportunities, and guiding new growth into existing communities. Parks can thus have a profound impact on a community's quality of life, and a region's economic prosperity.

Foster Vibrant Communities with a Strong Sense of Place

Communities that have a strong sense of place represent their residents' values and reflect their unique historical, cultural, economic and geographical context. They use natural and man-made boundaries and landmarks to create a sense of defined neighborhoods, urban communities, and regions. These communities encourage building construction and preservation, which prove to be assets over time not only because of the services provided, but also the unique contribution they make to the look and feel of a community. Beyond buildings, these communities reflect their unique characteristics in the details — such as landscaping, signs and awnings — that help to further distinguish the area for passers-by and visitors. Guided by their own vision, communities that have adopted smart growth principles can direct investment and development into areas that reflect a strong sense of place.





Make Development Decisions Fair, Predictable, and Cost Effective

For a community to be successful in implementing smart growth, its vision, objectives, and actions must be embraced by the private sector. The private sector is crucial to supplying the large amounts of money and construction expertise needed to meet the growing demand for smart growth developments. If investors, bankers, developers, builders, and others do not earn a profit, few smart growth projects will be built. Fortunately, government can help reduce barriers to profitable smart growth development practices. Since the development industry is highly regulated, the value of property and the desirability of a place are determined in large part by government investment in infrastructure and by government regulation.

Direct Development Toward Existing Communities

Smart growth directs development towards communities already served by infrastructure, seeking to utilize the resources that existing neighborhoods offer and to maintain the value of public and private investment. By encouraging development in existing areas, communities benefit from a stronger tax base, closer proximity of jobs and services, increased efficiency of already developed land and infrastructure, reduced development pressure in fringe areas, and preservation of farmland and open space. In addition, the process of increasing development in existing communities can maximize the use of existing impervious surfaces, thereby improving local and regional water quality, and can create opportunities for more transportation options, which lower vehicle miles traveled and ultimately improve regional air quality. Often existing neighborhoods can accommodate much of the growth that communities require through infill development, brownfields redevelopment, and the rehabilitation of existing buildings. For example, a 1996 study found that brownfields in Detroit, Chicago, Milwaukee, and Cleveland could absorb one to five years of residential development, 10 to 20 years of industrial development, or 200 to 400 years of office space.









Green Streets

Although there is a broad selection of tools when designing a green street, Main Street's urban context focuses the green infrastructure choices when designing for a functional and vibrant street. Green street design tools, which integrate stormwater control and management within the right - of - way, are a critical component of complete street design, ensuring the street remains usable and safe for all people during storm events, regardless of mode. For Main Street, considerations have been taken for both the impacts of stormwater on multimodal travel and the potential for green street investments to transform the public realm and create economic, social, and environmental benefits for all street users

Stormwater runoff is a major source of pollution in our urban environment. When rain falls on our streets, parking lots, and rooftops, it is unable to permeate the soil. Instead, it drains into Hartford's gutters, drains, storm sewers, and ultimately nearby bodies of water, like the Connecticut River, carrying with it the collected pollution along its course, including trash, oil, metals, bacteria. It also can erode, damaging properties and driving up maintenance costs. To combat this, cities across the world have increasingly incorporated "green infrastructure" into their streetscapes and urban design, creating Green Streets.

Although flooding is not a major issue on Main Street, care needs to be taken in future drainage design efforts to ensure that water is not ponding or puddling in areas that people walk such as ADA curb cuts, the cycle track, and at bus stops where people are loading and unloading.

Green infrastructure must be designed with maintenance in mind. Maintenance and operations strategies must consider the feasibility of what types of green infrastructure to pursue along Main Street. City crews will need a basic understanding of how these stormwater systems function, along with distinguishing between key plant species and unwanted weeds. Snow storage and clearing along with future and existing subsurface utilities are important considerations in the location and management of green infrastructure systems.

Ponding at curb cuts, like that seen in the picture at right, can be mitigated or even eliminated through better stormwater practices, like the use of bioswales, permeable pavement, and flow-through planters.



Green Infrastructure Practices

Green Streets are more than just an aesthetic feature; these smart environmental practices provide significant community benefits and make a Complete Street complete beyond its operations. Green street practices are select infrastructure elements, such as bioswales, rain gardens, and permeable pavement, that can be incorporated into a traditional street design to create a "Green Street". These practices capture, retain, treat, and/ or infiltrate stormwater runoff from impervious surfaces such as roadways, parking lots, sidewalks, and rooftops. Added benefits in implementing rain gardens and bioswales is the creation of vital habitat for pollinators and insects. Insects are experiencing an apocalyptic collapse in population due to numerous man-made factors which has a ripple effect on many other species. Through design and planning using the right plant species, green street design can provide (albeit small) habitat for critical species. Green Infrastructure is a cost-effective, resilient approach to mitigating the impacts of increasingly harsh weather events, reducing stormwater and treating it at the source, delivering numerous environmental, ecological and social impacts.

Typical Green Infrastructure Practices

BULBOUTS

- A traffic calming measure that extends the sidewalk and reduces crossing distance for pedestrians
- Can incorporate green infrastructure elements, such as landscaped rain gardens
- Plant selection should thrive in inundated conditions, provide stormwater filtration











Typical Green Infrastructure Practices Cont'd

BIOSWALES AND RAIN GARDENS

- Vegetated depression designed to capture, treat, and infiltrate stormwater runoff
- Adds street beautification as well as critical stormwater function
- Can be applied in medians as well as roundabouts, with excellent opportunity at Downtown gateway roundabout.



PERMEABLE PAVEMENT

- Infiltrates, treats, and/or stores rainwater where it falls
- Multiple materials available: pervious concrete, porous asphalt, permeable interlocking pavers
- Cost-effective were land values are high, flooding or icing are problems





URBAN TREE CANOPY

- Trees reduce and slow rainwater, intercepting precipitation with leaves and branches
- Root systems can uptake large quantities of stormwater
- Reduces summer temperatures and "urban heat island" effect, lowering energy use and providing relief for pedestrians
- Cools and stores stormwater before impacting natural resources

FLOW-THROUGH PLANTERS

- Landscaping structures that capture and treat runoff before filtering into an underdrain system
- Currently implemented by Hartford on Main Street along southern facade of the MDC building











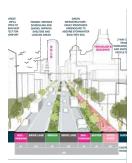
Recommendations

Over the past twelve (12) months, the Hartford community has worked together to better understand the problems, deficiencies and needs of the Main Street corridor. Crafting a holistic vision for this problematic corridor was a challenge and demanded a grassroots effort, requiring the involvement of property and business owners, underserved populations, transit administrators, bike advocates, emergency services, faith organizations, development community, City department representatives and elected officials. Public input, technical analysis, and the physical realities of Main Street all dictated the elements incorporated into the final corridor design. Through this process, key stakeholders and the citizenry have created a breathaking vision, transforming this corridor into a vibrant, active community asset.

The concept design for Main Street was developed

based on the vision of the Project Advisory Committee in coordination with the City of Hartford, CTtransit, CTDOT and the engagement process. These efforts led to the creation of the Guiding Principles (see Chapter 1), which were additionally influenced by the Complete Streets initiative and pedestrian comfort and mobility. Overall, there were strong desires for improving pedestrian safety and access, establishing gateway opportunities, making vehicular movement more predictable, encouraging development that suites the needs of the community, and cultivating an aesthetically pleasing sense of place along the corridor.

The graphic below illustrates how the design team addressed the major concerns of stakeholders while still respecting the desire to maintain an overall vision and physical "constructability."



Repaired sidewalks. context-sensitive bicycle facilities, and dedicated transit facilities are some of the corridor recommendations appearing here.

TREAT WALKING AS THE MOST **IMPORTANT ISSUE TO ADDRESS**



High-quality pedestrian crossings at a number of locations and a complete redesign of Main & Park Street are recommended.

PRESENT A **GREAT IMAGE** TO RESIDENTS, BUSINESSES & VISITORS



Adding street trees and better lighting, as well as replacing crumbling pavement and sidewalk, areintegral to this project.

REDUCE CRASHES AND IMPROVE SAFETY FOR ALL USERS



Anticipating a return on investment from reconstruction along Main while supporting quality urban design and placemaking are two important points.

BETTER INTEGRATE MAIN STREET WITH **ADJACENT USES**

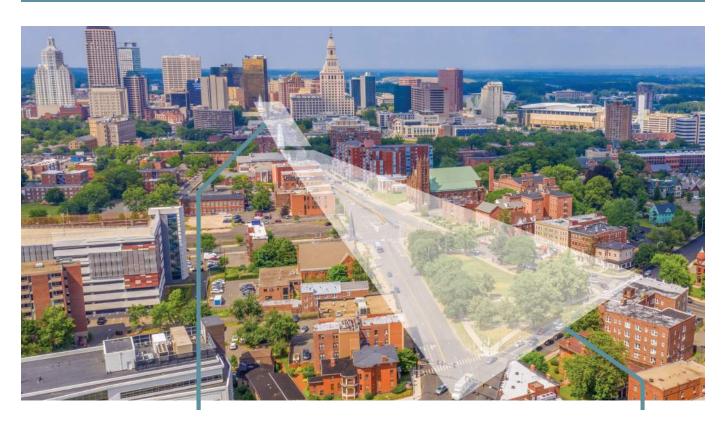








Corridor Context



CIVIC/INSTITUTIONAL DISTRICT

Asylum Street/Central Row to Elm Street

The Main Street corridor is characterized by some unique changes in its development. The south corridor, near Wyllys Street, is represented by three - to four - story independent commercial and office businesses, medical clinics and faith - based institutions. The street network is a cluster of confusing rights - of - way, crumbling pavement and a neglected Barnard Park. Moving northward, Main Street is flanked by multi - story institutional and civic uses with select office buildings. The typical cross section for Main Street is predominantly five lane curb - and - gutter facility, with the southern termini expanding to eight lanes. Several cross streets interact with Main Street, providing direct access to Whitehead Highway, I-91 and Founders Bridge to the east, and Pulaski Circle and Bushnell Park to the west.

The Main Street corridor experiences heavy commuter

PARK DISTRICT

Elm Street to Wyllys Street 2.370 FFFT

use for a simplistic gateway entrance with direct access to residential neighborhoods and commercial destinations. The concept design reflects a consistent cross section throughout with built in traffic calming and bicycle and pedestrian accommodations. It is important to note that the context of the corridor between the south and its northern termini (Asylum) is somewhat unique, the two of them combined make up the Main Street corridor and must make mobility of aall modes safe and convenient.

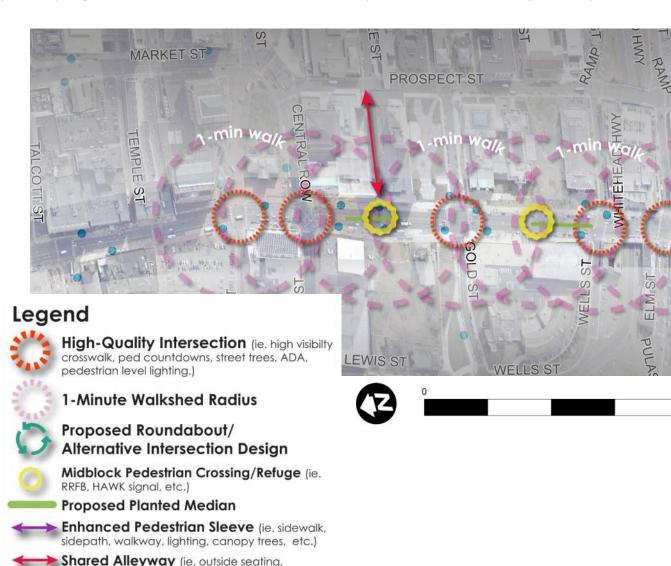
Public concerns and general ideas were spatially grounded along the corridor after a series of mapping exercises and virtual work sessions with project leadership, committee members, focus groups, online respondents, and public meeting participants, resulting in the Preferred Access Plan (PAP).

Preferred Access Plan

The Preferred Access Plan (PAP) provided the basis for the design from a broad, overall viewpoint. This perspective reflects how it all works together – connectivity, access management, and key nodal points that allow for 1 minute walksheds. Looking at the corridor holistically, it utilized the key takeaways and guiding principles that were gleaned from the engagement process and combined them with the design considerations from the plan and policy review.

Three primary focus areas for the redesign of Main Street were to a) improve the pedestrian and cyclist safety and mobility of the corridor; b) provide dedicated space for transit passengers and boarding's; and c) create a gateway to set the tone for the aesthetics and functionality throughout the corridor, and to create a sense of arrival and place for users traveling into the City. Additional criteria were used when designing the improvements to Main Street (see below).

SOUTH PI









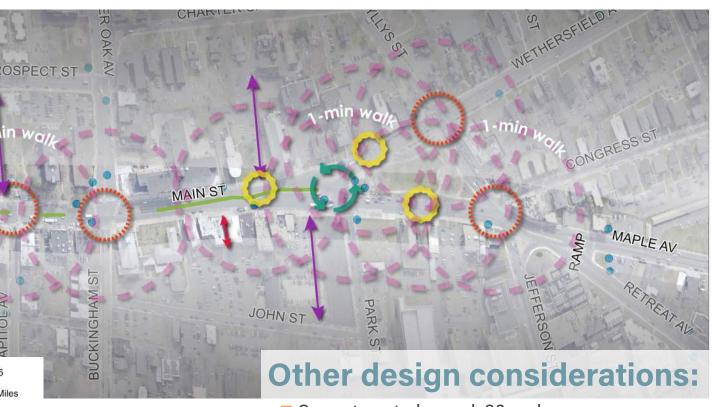
lighting, entertainment, etc.)

CTTransit Bus Stop



It is important to note that the Preferred Access Plan shows median locations. The use of these medians is confirmed to these specific locations with the purpose of controlling turning movements, slowing down vehicle speeds (traffic calming), and improving the predictability of traffic movements, while simultaneously improving crossing conditions by allowing for median refuge crossings. Some median locations will require cross access or "back door" access for vehicle circulation.

In addition to the use of planted medians, the PAP recommends the following high - quality intersections and mid-block crossings to enhance the safe passage of pedestrians and bicyclists. These intersection treatments would include high - visibility crosswalks, pedestrian countdowns, shade trees and pedestrian level lighting. Some intersection locations may include mast - arm signals and high - visibility crosswalks for enhanced beautification.



- Current posted speed: 30 mph
- Proposed posted speed: 25 mph
- Travel lane width: 11 ft
- Cross slope: 2%
- Sidewalks: 6 ft minimum, 12 ft standard
- Signals: improved actuated signals (one-system)
- Pocket Medians to calm traffic, control left turns

Concept Designs

The design considerations for each section of the roadway are described first followed by the concept designs, engineered using $\mathsf{AutoCAD}^{\mathsf{m}}$. This section shows graphically (see cross section for each Context Zone) how the typical cross sections developed for this project are used to create a context - sensitive and seamless set of design solutions that address the specific needs of the entire corridor. Photo-simulations of what the proposed result might look like, as well as imagery of built examples are provided, where applicable.













Barnard Park

PARK DISTRICT

With new development under construction at Park and Main Street and future streetscape upgrades happening on Maple Ave, this southern section of Main Street has the opportunity to serve as a gateway to Downtown Hartford for those heading north. The confluence of several heavily used streets coming together at Barnard Park poses safety concerns for pedestrians and cyclists. The design approach to this area is to provide meaningful upgrades to the park to restore its historic character, provide programming that reflects the surrounding neighborhood needs, and provide upgrades to sidewalks, fencing, and other spark amenities that have fallen into disrepair. Two bus stops are currently located at the northern tip of the park that lack transit amenities which has resulted in further degradation to the park due to the volume of pedestrians moving through the park without adequate paved areas to accommodate this volume. The concept design recommends that these bus stops be relocated north of Park Street in proximity of the firehouse. Moving these stops will have multiple benefits including, easing transfers between routes, improving legibility of stops so people know where to wait, a new High Intensity Activated Crosswalk (HAWK) beacon signal will be employed at the firehouse to give priority to pedestrians and help make it easier and safer for people to cross Main Street without impeding traffic.

The intersection of Wyllys Street, Wethersfield Ave and Main Street marks the beginning of a new two-way cycle track along the existing eastern curb line of Main Street. For the block between Wyllys and the funeral home, monolithic curb blocks will be used to protect cyclists from traffic. It is important to note that on-street parking will be eliminated along the eastern edge in this section but will remain along the park. Two driveway entrances in this block will need to be maintained.



Recommendations

- Continental crosswalks and pedestrian countdowns with audible pedestrian signals at all approaches
- Install protected 10' cycle track on east side of street with monolithic curbing
- Install concrete bus pads to allow ADA compliance
- Rearrange parallel parking
- Install streetscape improvements including pedestrian scale lighting, community banners, and canopy street trees, where possible
- Consider a community gateway feature at the intersection of Wyllys Street and Jefferson Street to welcome visitors to the City









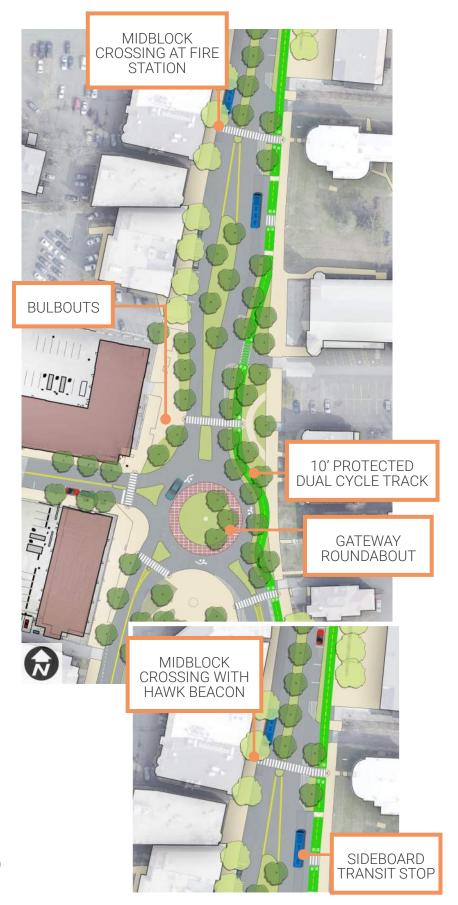
Park Street Roundabout

PARK DISTRICT

A new design feature at the intersection of Main Street and Park Street will be 120' diameter roundabout. Although a roundabout has traffic easing benefits, the main goals in the design on Main Street is to improve pedestrian safety by slowing traffic and reducing collisions, improve the perception of a gateway by increasing landscaping and providing the opportunity for public art, and eliminates long term costs of maintaining traffic signals. The single lane one way roundabout will be able to accommodate larger vehicles such as articulating buses, fire trucks and other types that travel on Main Street. From the roundabout north to the firehouse, the travel lanes will be reduced to one lane of traffic each way which will allow for a wider median allowing street trees to be planted. The deflection angle into the roundabout will also provide additional real estate to pedestrianize the areas in front of the Park and Main development and Saint Peters which in turn, can help to activate street life in this section.

Recommendations

- One lane roundabout, with inner circle of 120' diameter, with taper to accommodate trucks and large vehicles
- Continental crosswalks and pedestrian countdowns with audible pedestrian signals at all approaches
- Install protected 10' cycle track on east side of street with monolithic curbing
- Consolidate transit stops to Firehouse location
- Rearrange parallel parking at Barnard Park
- Install streetscape improvements including pedestrian scale lighting, community banners, and canopy street trees, where possible
- Install high visibility continental crossing at midblock location at Firehouse, with High-Intensity Activated Crosswalk (HAWK) Beacon for pedestrian crossings.





Before







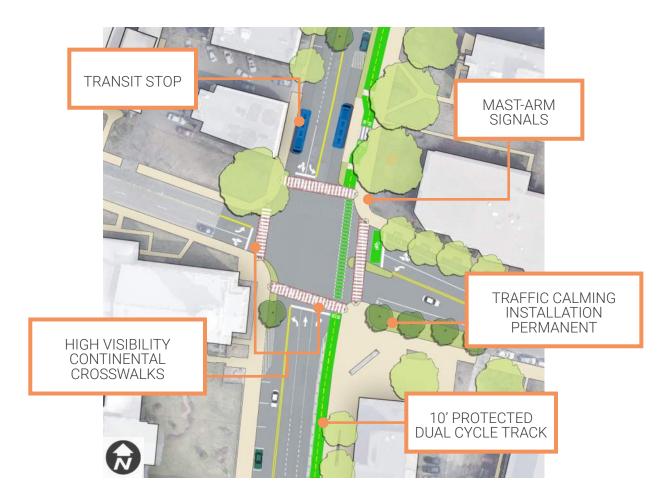




After

Buckingham Street/Charter Oak Avenue

PARK DISTRICT



As stated previously in the report, this intersection is particularly unsafe due to a host of factors, but most importantly is the length of the eastern crossing running north/south. With poor signal timing, and a distance over 90 feet makes crossing the entire width in one signal phase difficult. The concept design proposes extending the curb line and reducing the turn radius at the southeast corner. This will slow vehicles down considerably making a right turn onto Charter Oak Ave. The dedicated right turn lane will also provide clarity for drivers and pedestrian and cyclist countdowns with audible pedestrian signals will create a much safer, high quality intersection. On the southwest corner of the intersection, a bulb-out will shorten the crossing distance from southwest corner to the southeast.

- 11' 12' planted median (where indicated) with roll curb and appropriate vertical plantings to encourage traffic calming
- Protected 10' dual cycle track on east side of street protected by planted median (north leg) and monolithic curbing (spaced appropriately to allow drainage)
- Transit Island stop north of intersection
- Pedestrian countdowns with audible pedestrian signals
- Bulbouts for stormwater management practices where indicated
- Streetscape improvements including pedestrian scale lighting, community banners, and canopy street trees, where possible.



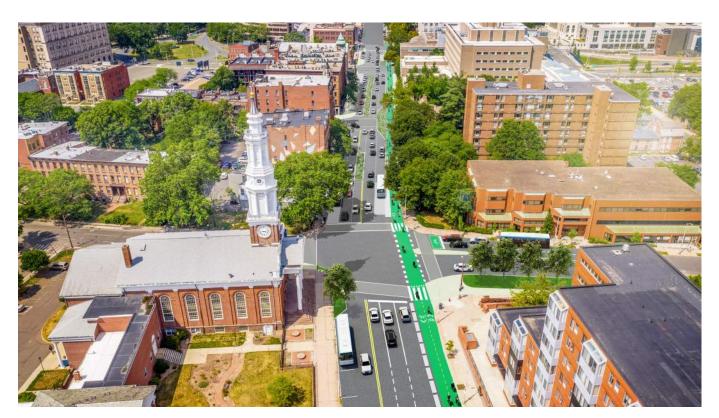








Before



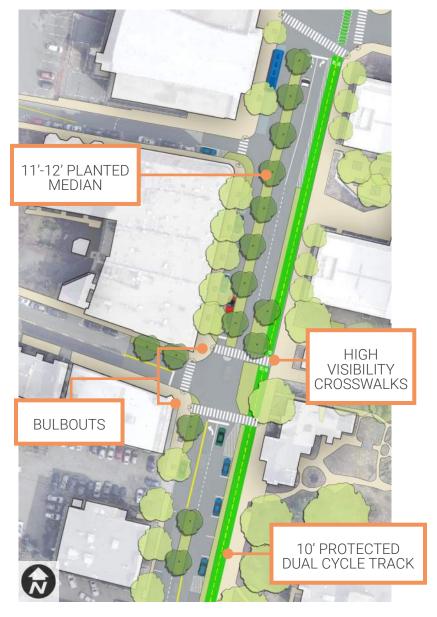
After

Linden Place

PARK DISTRICT

This block from Charter Oak to Sheldon St has a diverse range of building types and uses. The western side of the street offers ground floor restaurants and beautiful brick residential and office space above. The eastern side has the historic Butler McCook House, the entrance to Pulaski Mall and the federal courthouse. A small pocket median shall be located at the midpoint between Buckingham and Capitol Ave. There are several entrances to parking lots that where access needs to be maintained. The two-way cycle track will have a slight jog in this section to accommodate an ADA platform for the northbound bus stop. A parklet was constructed in this block as well that claimed 2 parking spaces for additional outdoor dining space for Peppercorns Grill. A local Hartford art collective implemented a colorful pattern on the pavement as well as on the concrete blocks used to protect diners from traffic.

At the Butler-McCook House, a bump out will help protect the house from oncoming traffic, provide area for street trees and reduce crossing distance. To accommodate the bump out, a single lane of traffic compressing down to a single lane in each direction for a short duration.



- 11'-12' planted median (where indicated) with roll curb and appropriate vertical plantings to encourage traffic calming
- Protected 10' cycle track on east side of street protected by planted median and monolithic curbing, spaced appropriately to allow drainage
- Transit stop on west side of Main Street north of intersection
- High-visibility continental crosswalks at all legs of

- intersection.
- Pedestrian countdowns with audible pedestrian signals
- Bulbouts for stormwater management practices where indicated
- Streetscape improvements including pedestrian scale lighting, community banners, and canopy street trees











Before

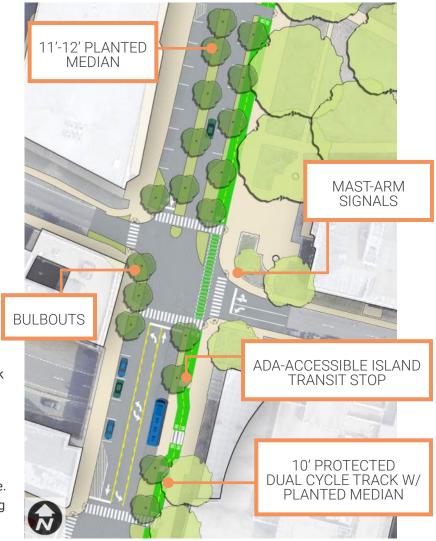


After

Wells Street/Arch Street

CIVIC/INSTITUTIONAL DISTRICT

This intersection has the opportunity to dramatically improve and activate street life. Between the Library, City Hall and potentially new development at 525 Main Street this area can serve as a nexus and catalyst for change along Main Street. The future development at 525 Main should engage with the sidewalk. The concept design recommends a bulbout in this area to increase the width of the sidewalk to provide the potential for additional street trees and outdoor seating in relation to any ground floor development. An understated unique feature to this section on the western side of the street is the bridge over the Whitehead Highway. This offers pedestrians views beyond to Bushnell Park and a once beautiful ornamental railing spans the bridge. This would be a great opportunity to preserve and restore the rail in some way to celebrate the unique character it creates along the sidewalk. The MDC building looms large on the western side with a fortress like stone façade. Recent streetscape improvements include adding street trees in what appears to be a continuous below grade soil tree-way. This has the potential to dramatically improve this section once the trees fill in. A new roadway median with tree plantings will further reduce the width of the overall street and begin to compliment the grand Burr Mall landscape. This median can serve to mark the civic nature of Main Street by providing intense seasonal plantings such as tulips and daffodils in the spring similar to other cities such as Chicago's Michigan Avenue. This notion had widespread support throughout the community design process.



- 11'-12' planted median with roll curb and appropriate vertical plantings to encourage traffic calming
- Protected 10' cycle track on east side of street protected by planted median and monolithic curbing, spaced appropriately to allow drainage
- Transit Island stop along east side of Main Street south of Wells/Arch Street intersection
- Pedestrian countdowns with audible pedestrian signals
- Intersection improvements to include mast arm signals and high-visibility crosswalks
- Bulbouts for stormwater management practices
- Streetscape improvements including pedestrian scale lighting, community banners, and canopy street trees, where possible











Before



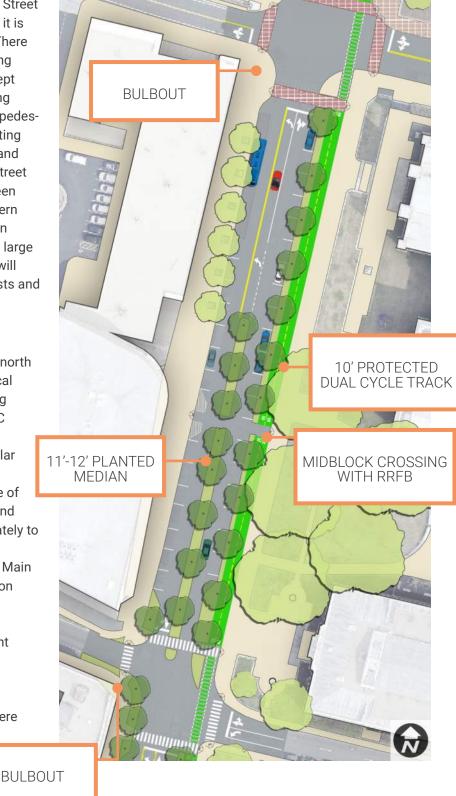
After

Wells Street/Gold Street Mid-Block Crossing

CIVIC/INSTITUTIONAL DISTRICT

Currently, pedestrian frequently cross Main Street mid-block posing safety concerns because it is over 500 feet from a signalized crossing. There are also desire lines for pedestrians crossing through Burr Mall heading west. The concept design proposes Rectangular Rapid Flashing Beacons (RRFB) that would give priority to pedestrians looking to cross the street. The planting median will also provide added protection and safety for pedestrians. Twelve additional street trees are proposed in the buffer area between the cycle track and roadway along the eastern side. This will create much needed shade in front of the Athenaeum and combined with large mature Honeylocust trees at the Burr Mall will great a wonderful, shaded canopy for cyclists and pedestrians.

- 11'-12' planted median with roll curb north of Wells Street and appropriate vertical plantings to encourage traffic calming
- Midblock pedestrian crossing at MDC Building with median refuge and pedestrian-activated Rapid Rectangular Flashing Beacon (RRFB)
- Protected 10' cycle track on east side of street protected by planted median and monolithic curbing, spaced appropriately to allow drainage
- Maintain transit stop on west side of Main Street south of Gold Street intersection
- Pedestrian countdowns with audible pedestrian signals
- Bulbouts for stormwater management practices where indicated
- Streetscape improvements including pedestrian scale lighting, community banners, and canopy street trees, where possible













Before



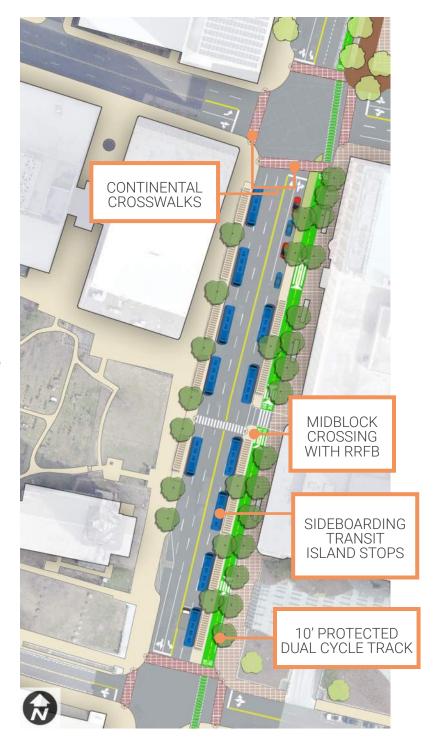
After

Pearl Street/Central Row

CIVIC/INSTITUTIONAL DISTRICT

Dramatic, transformational changes for this block hinge upon the physical treatment and management of bus operations. Throughout the community outreach process the design team heard the concerns of the public about noise, smell and confusion of idling buses stacked six in a row along the sidewalk. The concept design recognizes the importance of providing public transportation while imagining the need to separate bus operations from the sidewalk to give back this space for pedestrians as well as allowing for ground floor activation of the street by adjacent property owners. These dimensional shifts have the provide dedicated space for bus operations and enhanced bus amenities such as integrated shelters. This 12-foot zone on each side of the street, provides ample room for the loading and unloading of buses. This zone would provide high quality seating with street tree plantings to provide additional shade.

- Protected 10' cycle track on east side of street protected by planted median and monolithic curbing
- ADA-accessible sideboard transit island stops, 12' width, along east side of Main Street south of intersection
- Maintain transit stops with transit shelters along west side of Main Street
- Pedestrian countdowns with audible pedestrian signals
- High-visibility continental crosswalks
- Midblock crossing with Rectangular Rapid Flashing Beacon (RRFB) where indicated
- Mast-arm signals at Pearl Street intersection
- Bulbouts for stormwater management practices where indicated.
- Streetscape improvements including pedestrian scale lighting, community banners, and canopy street trees, where possible













Before



After

Transit Recommendations

Transit is a critical component of Main Street, and its operations and presence have a direct impact on the street's character. The recommendations outlined in this section were integrated into the Main Street design in support of the overall Guiding Principles:

- 1. Pedestrians must be a priority
- 2. Safety of all users is critical
- 3. Design Main Street to human scale, encouraging a vibrant street life
- 4. Right-size Main Street with maintainable infrastructure
- 5. Support surrounding uses through attractive design

Main Street is the main transit artery in Hartford, the hub where most CTtransit routes in Hartford connect, and a significant destination itself. Hundreds of buses roll through the study area daily, with activity concentrated in the northern part of the study area.

Current routing plans for both north/south and east/west routes concentrate transit-related activities on Main Street, which has both advantages and disadvantages. For riders, the overlap of routes on the same or nearby blocks means that transfers between routes are close together and thus relatively easy. This also means that investments in passenger amenities, such as transit shelters, ticketing machines, and signage, in particular between Pearl Street/Central Row and Gold Street/Atheneum Square, have the maximum impact.

However, the concentration of service, including commuter and east-west routes that use Main Street to turn around, leads to issues. Transfers often require crossing up to five lanes of active traffic on Main Street, particularly difficult for people with mobility challenges, and made worse when trying to make the scheduled time for one's bus. Buses that have paused at the curb for any number of reasons - loading passengers, waiting for scheduled departure times, etc. - form a line or "wall" on the street as exhaust and noise create unpleasant conditions. This is often in conflict with the overall goal of creating a vibrant, active street life on Main Street. Moreover, riders and people waiting for buses can be a disproportionate share of all sidewalk users, crowding pedestrian space and at times discouraging other potential locally serving street life

These recommendations include transit design and operational changes to support the project's overall Guiding Principles. Design changes will create more space for riders and transit vehicles, while operational changes can improve the overall character of the street.









Consider Operational Changes to Reduce the Bus Load on Main Street

From a Main Street perspective, some of the issues associated with the level of bus activity on Main Street can be alleviated by operational changes that reduce the concentration of service. CTtransit together with its partners continues to study and make adjustments in order to most efficiently serve its existing and future riders. Two recent studies, the 2016 Comprehensive Transit Service Analysis (CTSA) and the 2013 Downtown Hartford Transit Circulation and Through Routing Study (TCTRS), have included operational changes that support the reduction of the bus load on Main Street.

Crosstown Connector Routes, such as the

Specific opportunities identified in the CTSA include:

- proposed Route 20 and Route 63. These routes link together key corridors and key regional destinations without traveling through downtown Hartford.
- Connector Routes, such as the proposed Route 41 and Route 63. These routes provide "first mile / last mile" connections to and from regional transit hubs.

The 2013 TCTRS also included some recommendations to reduce the passenger and bus load on Main Street, some of which are still relevant and include:

- Improve east-west routing by through-routing routes, so that routes no longer need to turn around on Main Street
- Relocate north commuter routes from Main Street.
- Shift eastern route turnarounds to Union Station.

Southbound buses at one of three stops on Main Street. Operational improvements above will help to reduce the bus load.



Use "Pull-Out" Bus Stops to Maximize Space

The majority of the stops in the proposed design for Main Street are "Pull Out" bus stops, where the bus either pulls out of traffic before ("near - side") or after ("far - side") an intersection. Both types of pull - out stops make efficient use of the intersection, as the bus can use that space to pull into or out of traffic. All stops, including transition zones, should be clearly marked and signed to prevent any other type of stopping, particularly vehicle parking. On Main Street, most pull-out stops will occur in what is otherwise a parking lane, so that space must be clearly delineated for transit access.

These types of stops offer the following advantages:

- Both types of pull out stops make efficient use of the intersection, as the bus can use that space to pull into or out of traffic (as long as it is not blocked by a curb extension).
- Pull out stops allow vehicles to pass while the bus is stopped.
- Pull out stops clearly define the bus stop.
- Customer loading/unloading can happen in a more relaxed manner.

Pull-out stops also require the following considerations and limitations:

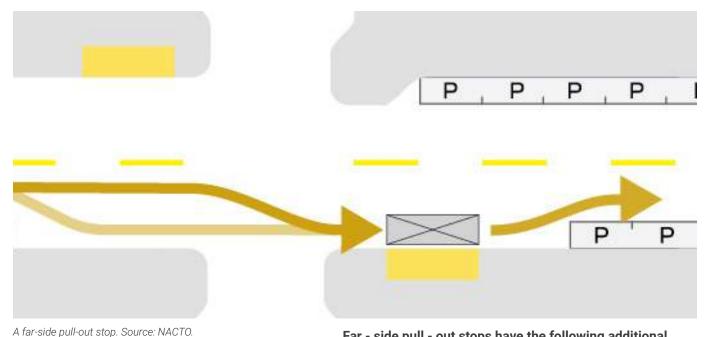
- Near side pull out stops should be close enough to the intersection to prevent right - turning vehicles from merging in front of and blocking the bus, but leave enough room for the crosswalk.
- Both types of pull out stops can create sight line issues for crossing pedestrians, including blocking traffic control devices, as well as vehicles turning from the adjacent side street.
- Both types of stops can make it harder for buses to re - enter the traffic flow.
- Traffic signal upgrades should include signal detectors that can be triggered by a bus serving a near - side pull - out stop.
- Bus stop lengths should be appropriate to allow the bus to fully transition out of and into traffic and align all doors parallel with the curb.
- Curb extensions can block the ability of pull out stops to maximize the use of intersections.











A far-side pull-out stop. Source: NAC FO.

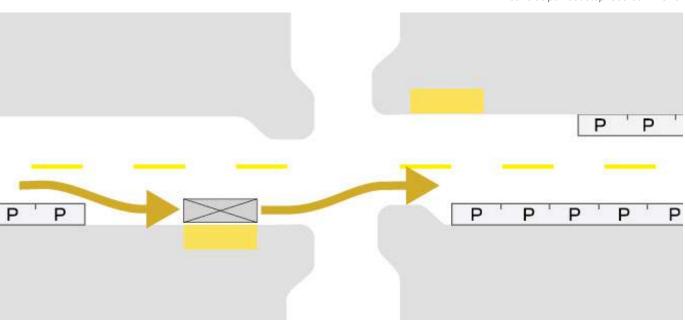
Near - side pull - out stops have the following advantages:

- Allow boarding close to the crosswalk, so that people coming from the other side of the street can safely cross while the bus is stopped
- Reduce the likelihood of rear-end crashes

Far - side pull - out stops have the following additional advantages:

- Minimized conflict with turning vehicles
- Safer for pedestrians as crossings are not visibly blocked by the bus
- Buses pulling back out into traffic can take advantage of gaps in traffic flow created at signalized intersections
- When not occupied by a bus, this space can receive left-turning large vehicles, including transit vehicles as well as trucks

A near-side pull-out stop. Source: NACTO.



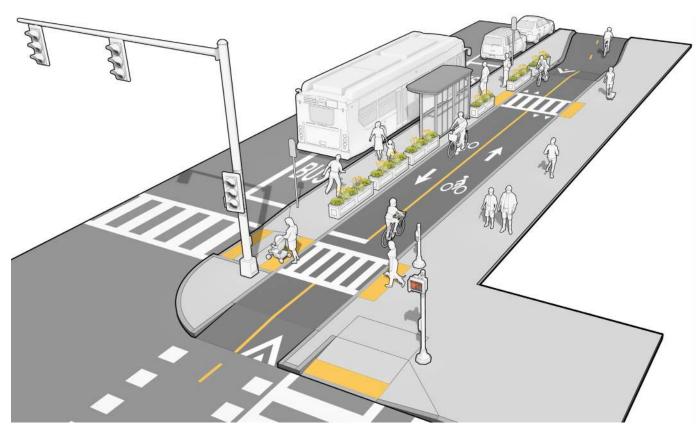
Create Space for Transit Users on the East Side of the Street

Bus stops on the east side of Main Street will have 'side boarding islands," which are boarding areas that are separated from the sidewalk by the cycle track. These offer the following benefits:

- Reduce or eliminate bus/bicycle conflict.
- Provide space for both transit riders and amenities without blocking the sidewalk. This includes space to deploy ramps or unload bicycles from a waiting bus.
- Separate platforms can be configured for level or near - level boarding, which can speed the boarding process, particularly for those using mobility devices, strollers, etc.

Boarding islands also will require the following considerations:

- The cycle track should have marked crossing areas and potentially yield zones and/or raised crosswalks at high ridership stops to allow people alighting or boarding to get between the sidewalk and the bus stop. These should include detectable warning strips.
- Shelters on boarding islands should be at least 10 feet from crosswalks over the cycletrack to allow people on bikes to see people exiting the island.



Transit Side-boarding Island Stops create space for transit users and amenities without crowding the sidewalk. Source: Massachusetts Department of Transportation.









Consolidate Stops at Barnard Park

The proposed plan reduces the number of stops in the study area, in particular consolidating those in and around Barnard Park, formerly on Main Street and Wethersfield Avenue, to stops at the Fire Station and St Peter's Church. This stop consolidation offers the following advantages:

- Fewer stops reduces the overall running time for buses.
- As in the northern part of the study area, consolidated stops offer the opportunity to invest more heavily in rider amenities, as they will serve more riders.
- Some riders may need to cross fewer streets to make potential transfers. For example, a transfer from Route 53, alighting at Wethersfield Avenue and Main Street, to Route 31 or 33 outbound at Main Street and Park Street would have to cross up to 8 lanes of vehicle traffic today. That transfer

would likely move to the two stops between Charter Oak Avenue/Buckingham Street and the Park Street roundabout, where people transferring would only cross two lanes of active traffic.

This configuration also includes the following considerations:

- For people coming from the south who transfer to westerly bound routes using Park Street, this requires more in-vehicle time.
- For people who use the stops around Barnard Park because they are close to their origin or destination, this will require a slightly longer walk to access transit.
- Stops at the Fire Station and Saint Peter's church will be busier and should have better amenities for riders.

Further review of transferring needs, ridership patterns, and public input will be necessary.



Consolidated transit stops at the South Green Fire Station and St. Peter's Church. Reduced overall running time and reduced transfer complexity is offered by this proposed new configuration.

Enhance Stop Amenities

This Main Street design includes spaces for comfortable, safe places to wait, board, and alight. Specifically, each stop must include:

- Shelters and seating should be positioned so that all riders can wait, board, and alight without obstruction
- An accessible boarding area, typically 5 feet long by 8 feet wide, which includes space for a wheelchair as well as ramp deployment
- Additional accessibility considerations as required by CTtransit or outlined by NACTO

Based on CTtransit's Service Design Guidelines, it is likely that all stops on the corridor should include these basic elements to create a safe and comfortable waiting area:

- Bus stop sign, including the number or letter designates for the routes serving each stop as well as contact information for the Customer Service Center
- Lighted shelters
- Trash receptacle
- Benches

Additional amenities to consider, particularly at high ridership and/or transfer locations, include:

- Real-time arrival signage
- Bicycle parking
- For extremely high ridership locations, passenger queueing markers can help organize loading and waiting and keep pass-through areas of the sidewalk clear for people walking and rolling. This could speed bus loading activities, which in turn improves operations.
- For locations that serve multiple routes, such as the hub between Pearl Street/Central Row and Gold Street/Atheneum, signage that is clear as to where on the block various routes stop. This may include color coding or large displays of route numbers.
- It may also be helpful to include a "strip map" of where the various routes stop on the block. This would help passenger access as riders can easily identify where their stop is. It should also be designed to help streamline operations so that different routes can maximize the space at the curb.
- Ticket vending, including CTfastrak, or space for future ticket vending machines
- Large system and route maps

Providing these amenities will be a joint effort between CTtransit, the City of Hartford, and the Greater Hartford Transit District.



Enhanced bus shelters such as the one at right can improve the transit rider's experience through well-lit shelters, benches, fare vending, real-time arrival information, and other amenities. This convenience improves transit's competitiveness with other modes of transportation.









Streamline Operations at Main Street Bus Hubs

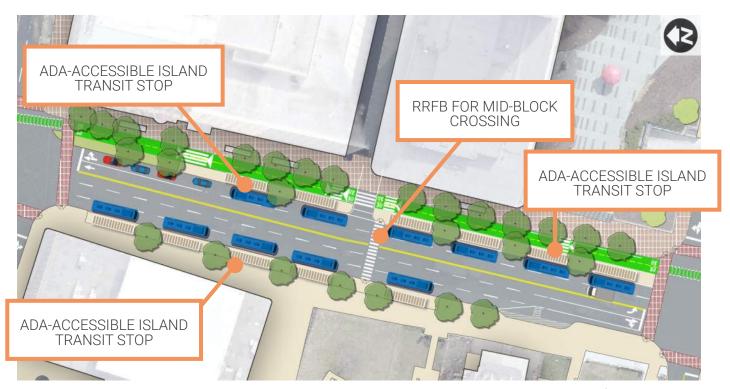
The blocks between Pearl Street/Central Row and Gold Street/Atheneum Square technically have five stops, with three on the west side and two on the east. This is where much of the service in the Main Street study area begins or ends and further represents a key transfer location.

The overall design of the stop area includes a reduction in active travel lanes from five to three, which will greatly decrease the crossing time for people walking and make it easier to get between routes. The design also includes an additional mid-block crossing with a Rectangular Rapid Flashing Beacon (RRFB) that will facilitate safe crossing and prioritize people walking and rolling between routes. These changes will streamline transfers and increase customer safety. Additional street trees will provide shade for waiting passengers.

Operations at this stop should be managed to minimize waiting, decrease dwell times, and ensure the smooth and safe operation of buses pulling in and out. Steps to achieve this may include:

- Reduce dwell times dwell times at transit stops
- For customers, consider marketing the location as one "Hartford Bus Hub," with individual signage directing customers to specific routes
- Berths (if applicable) or locations that individual routes serve should be clearly marked, either using simple displays or real-time information
- CTtransit can continue to use data on real-time operations to time its schedules to reduce dwell time on Main Street
- Ensuring that there is enough space for buses to pull in and out without blocking traffic. This will be particularly important during the evening "pulse" where buses dwell at this location in order to align infrequent schedules. Further study is required to determine the amount of space necessary for efficient operations.

All of these recommendations will require further study to determine how to best serve rider needs and support effective bus operations.



Consolidated transit stopsat the South Green Fire Station and St. Peter's Church. Reduced overall running time and reduced transfer complexity is offered by this proposed new configuration.

Traffic Analysis

Table 6.1: 2040 Level of Service on Main Street

Intersection	Peak Hour	No-Build	Proposed Design
Pearl St/Cen- tral Row	AM	Е	D
	PM	F	D
Gold St/Athe- neum Square	AM	D	D
	PM	D	D
Main St at Wells St/Arch St	AM	С	С
	PM	Е	С
Main St at Elm St/Shel- don St	AM	В	С
	PM	В	С
Main St at	AM	В	В
Capitol Ave	PM	D	D
Main St at Buckingham St/Charter Oak Ave	AM	С	D
	PM	Е	Е
Main St at Wethersfield Ave/Park St	AM	С	Α
	PM	С	С
Maple St at Jefferson/ Wyllys St	AM	D	Е
	PM	Е	Е
Maple St at Retreat Ave	AM	В	В
	PM	С	С
Wethersfield Ave at Wyllys St	AM	D	С
	РМ	D	Е

A reimagined Main Street is only as good as its ability to positively affect its environment and the user experience. While many of the elements of this design are intended to improve conditions for bicyclists and pedestrians, motor vehicles remain an important aspect of this Complete Street. Using the design recommendations in this Chapter, future-year traffic conditions were modeled to determine design impacts.

Building on the No-Build model developed earlier in this Report, the analysis made new modifications and assumptions to model the new roadway:

- Reduction in northbound and southbound travel lanes
- 2. Upgraded, coordinated traffic signals, with AM and PM peak periods individually optimized and coordinated
- Traffic detection installed on mainline and minor approaches
- Concurrent pedestrian phases, with five second lead pedestrian interval at Gold, Wells, Elm, Capitol, Charter Oak, and Wethersfield/Wyllys intersections
- 5. Fully protected southbound left-turn phases at Gold, Elm, and Charter Oak intersections
- 6. Roundabout at Main and Park intersection
- HAWK signal installed near South Green Fire Station, coordinated with Charter Oak intersection

The analysis shows that this design operates favorably to the 2040 No Build scenario in terms of the Overall Intersection level of service. During peak hours, this design shows the following changes:

- AM: The intersection of Maple Avenue at Jefferson Street is projected to operate at LOS E, as compared to LOS D in the 2040 No Build scenario
- PM: The intersection of Wethersfield Avenue at Wyllys Street is projected to operate at LOS E, as compared to LOS D in the 2040 No Build scenario

Thus, the "Build" condition represents an overall improvement to existing conditions, or at least the current equivalent of existing conditions, for all intersections except an "insignificant decrease versus existing conditions" at Wyllys & Maple, and Wyllys & Wethersfield. Further mitigation strategies, including signal retiming, should be explored in these locations.









LANDSCAPE DESIGN

Recommendations

Section 6.0 of the Hartford Zoning Regulations are an excellent starting point for guidelines related to Sitework and Landscape along Main Street. This document outlines requirements for soil volume for trees, tree type, sizing, spacing and quantity, and is a good reference for signage and other standards related to the public realm. The recommendations below are specific to Main Street, and intend to build on the zoning standards to create a cohesive, sustainable, high quality public realm. The guidelines in this chapter are intended to be used as a high-level planning tool for future public projects and can grow into a more standalone tool for City Staff.

The efforts of this study focused on the public realm and the area under public ownership and includes areas such as streets, sidewalks, open space, landscaping, lighting, and street furniture. Planning and design of public and private streetscape elements can help establish a cohesive character and a strengthen the identity for Main Street and the City of Hartford. Along Main Street, emphasis should be placed on creating a safe and comfortable pedestrian environment. Attention should focus on the design of new and replacement sidewalks, crosswalks, use of storefront displays and merchandising to promote pedestrian traffic, and provisions for sidewalk dining areas.

These preliminary streetscape design guidelines are an initial effort into creating a unified and attractive Main Street. The hope is that incremental improvements to the public realm will act as an investment catalyst, encouraging property upgrades and new development. The intention of these preliminary design guidelines is to:

- Provide a framework to organize lighting and street furniture to give a sense of direction and orientation;
- Establish a high-quality street furnishings palette that reflects Main Street's character, creates interest and comfort for the public realm; and
- Establish a landscape that is easy to maintain and is appropriate to the location.

Planning and design of public and private streetscape elements can help establish a cohesive character and strengthen the identity for Main Street and the City of Hartford.

Streetscape Materials and Furnishings

The design of the Main Street Corridor, particularly paving, street furniture, landscaping, and lighting, should contribute to the evolving sense of place and character of the City of Hartford.

Sidewalk Paving

Sidewalks provide pedestrian access to virtually every activity and connect walking with other modes of travel, including automobiles and public transit. The pedestrian experience will play an important part in the functionality Main Street and the economic health of this area of the City The following are design guidelines for sidewalks and pedestrian treatments.

 Sidewalks should have a "through pedestrian zone" that is kept clear of street furniture, landscape features, and other fixtures/

- obstructions. A minimum of five feet preferably eight feet should be reserved to allow for two people to walk comfortably side by side in compliance with the American Disabilities Act (ADA) requirements.
- Sidewalk surfaces should be stable, firm, smooth, cleanable and slip-resistant.
- Sidewalk paving pattern, color, and material should continue when driveways/curb cuts intersect. Where pedestrian circulation paths come in contact with vehicular circulation paths, crossing should clearly delineate a continuous pedestrian path (material change, contrasting color, or slightly raised surface).
- Design features such as enhanced paving on walkways, landscaping, and lighting should be used to distinguish the pedestrian route from the vehicular route.
- Sidewalks shall be well maintained, kept free of litter and cleaned regularly.



Permeable pavers, such as those seen in the image at right, can help to demarcate pedestrian through-zones from furnishing zones, while also reducing impervious surface in an urban setting.











Street furniture, such as outdoor dining features and benches (next page), bring the public into the streetscape and help to create a sense of place.

Street Furniture Palette

Street furnishings not only serve a utilitarian function but also improve the aesthetic quality of the public realm. Street furnishings include all items placed within the public right-of-way, such as streetlights, benches, bus shelters, bollards, trash receptacles, planters, tree grates/guards, bicycle racks, kiosks, and newspaper racks. Proper design and placement of street furnishings is extremely critical, and when properly executed, has the power to unify and bring new life to Main Street. The following guidelines should be considered when selecting and locating street furniture amenities.

- High-quality street furniture conveys permanence and shows that the public realm is valued, important and well-protected.
- Materials and colors should be carefully selected to create the desired aesthetic and vision for the public realm. Metal components are preferred and shall be powder-coated the same color to create a sense of continuity. Poured concrete may be used

- where appropriate. Wood slats shall be avoided.
- The design and selection of street furniture should consider safety, security, comfort, and convenience of the user. Prior to selection, the Public Works Department should review choices for durability of materials and ease of maintenance after installation.
- Street furniture should be securely anchored to the sidewalk and a graffiti-resistant coating should be applied to ensure a good appearance over the long term.
- Street furniture should be located along the street edge of sidewalks, with clear, sufficient width maintained for pedestrian traffic.
- Furnishings should be grouped to create a more organized and efficient use of sidewalk space. Trash and recycling cans should be located near benches with a variety of furnishings in higher pedestrian traffic areas.

Benches

Currently there is little bench seating along the length of the corridor except at bus stops. Public seating creates a comfortable, usable, and active public environment where people can rest, socialize, read, or people-watch. It is a simple gesture that can go far to create an important sense of place. Seating creates places where people can see and be seen. This ability to entice people to linger is the hallmark of great and successful public spaces.

Adding seating along Main Street is an easy street improvement that can be made by individuals, community groups, business districts, and others, often as part of an overall streetscape project. A six-foot bench, as well as trash and recycling receptacles, should be placed approximately every 100-feet in the high traffic areas such as the Pearl and Gold Block and should be clustered at transit stops and intersections.

Bike Racks

Main Street currently has two different types of bike racks along the corridor. At the Old State House, between Gold and Pearl, and in front of the library, the "hitch" style bike rack is being used. Further south, U-shaped bike racks are used for the rest of the corridor. Although both of these styles are durable and easily installed, the hitch style rack provides multiple points to securely anchor bikes and takes up less real estate on the street. Bicycle racks should be located near transit stops, civic uses, commercial areas, parking lots, and within parks and open spaces. Well-placed, secure bicycle racks will encourage bicycle ridership and provide an attractive alternative to locking bicycles to trees and light poles. Along major streets, bicycle racks are required at key locations. The U-shape style rack or the hitch style rack is recommended due to its functionality and ease of use. The rack design permits bicycles to be parked parallel to the sidewalk, which keeps bicycles out of pedestrian traffic.



Above: high-quality benches create comfortable, attractive locations to rest along the corridor, while conveying a sense of place and an invitation to linger.

Right: hitch-style bicycle racks can be found along Main Street. More racks located closer to destinations can help improve bicycling's attractiveness and competitiveness with cars.











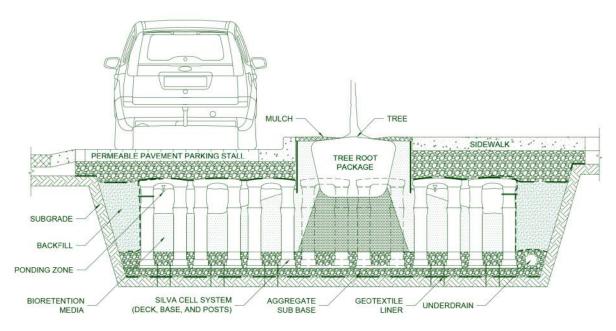


Diagram of a Silva Cell system, which allows for large trees to grow in urban settings and absorb runoff.

Landscaping and Street Trees

Landscaping along Main Street's public right-of-way includes street trees, medians and accent plantings. Landscape improvements enhance the appearance of the streetscape, complements the surrounding buildings and provides environmental and public health benefits. The addition of street trees alone will provide a dramatic improvement to the landscape character of the public realm. Safety, environmental impacts and ease of maintenance and operations need to be considered when planning for landscaping along the corridor.

Street Trees in Sidewalks and Paved Areas

Soil volume is the biggest factor whether street trees can thrive in the urban environment. Street trees at the back of curb along Main Street have not thrived due inadequate soil volumes in the tree pits. Where possible, breakout zones should be provided under the concrete sidewalk for the root zone to make its way to native soil

areas to improve health and size of the trees. This can be accomplished using a soil cell system. A soil cell system is an underground framework or scaffolding that holds up pavement slabs while providing for lightly compacted soil that supports large trees and absorbs runoff from rain, increasing air and water quality, reducing energy loads, mitigating heat island effect and nurturing trees for a long life in their communities. Research has shown that soil cell systems yield larger trees than structural soil.

- A soil cell system should be used in areas where trees will be bound on all sides in pavement. It is critical that enough soil volume is provided for each tree in order to maximize the canopy. Tree size directly correlates to the amount of soil volume provided. Without adequate soil volume a tree will never reach its full size. A good rule of thumb is to provide a minimum of 700-1000 cubic feet of soil volume per tree.
- In paved areas, it is recommended that a





Planted medians provide traffic calming, reduce heat island effect, and can filter stormwater, but require consideration of plant materials and proper spacing. Although not shown above, upright trees are an attractive option for planted medians, but must not interfere with passing vehicles.

continuous soil trench connecting groupings of trees be implemented that uses a soil cell system allowing the trees to share soil volume. This approach has the added benefit of storing and releasing stormwater.

- New deciduous street tree planting at the back of curb should be a minimum of 3" caliper at installation. Selection should consider tolerance to the urban condition. A monoculture of any species should be avoided in case of disease and pest pressures. For each block, a mix of two urban tolerant tree species should be selected.
- Tree pits in paved areas should utilize root barriers to prevent the heaving of sidewalks. Irrigation for tree establishment should be provided where possible.
- Steel Tree grates should only be used where heavy foot traffic might cause compaction at the base of

the trees and where the tree pit might infringe on the pedestrian right-of-way. ADA accessible tree grates should only be used in these areas.

Median Planting

Medians breakup the expanse of asphalt and provide an opportunity to introduce planting to reduce the heat island effect, filter stormwater, and add to the landscape character of Main Street. A successful median planting design will consider the appropriate use of plant materials, proper plant spacing and long-term maintenance should top the list of considerations. Drought and salt tolerant species need to be considered for the medians as the conditions are challenging.

Fastigiate and upright habit trees should be considered for trees planted in the median to avoid damage to branches by passing vehicles.









Site Lighting

One of the most important and effective ways to unify the public realm is through lighting.

Main Street currently has different lighting styles along its length. Closer to Downtown, between Pearl and Gold, the lighting style is an elegant, historic replica pole with a shepherd's crook arm and a down light luminaire with an 80' on center spacing. This style gives way to a highway style cobra-head fixtures at the same 80' on center spacing. Both pole styles have banner arms. It is recommended to replace the cobra-head style lights with the black historic style lighting. Lighting should be spaced to reach the minimum foot candle levels as required in the zoning documents.



Historic-style lighting, seen here by near Atheneum Square, should be spaced to reach minimum foot candle levels.

Public Art

Main Street already has great precedents of public art along the corridor. From Carl Andre's Stone Field sculpture, the sculptures in front of the Atheneum, the Alexander Calder sculpture at Burr Mall, to large scale wall murals, historic monuments and the outdoor sculpture garden at Bushnell Gardens, these works add to the spirit of place for Main Street. Building on the Main Street art community's character, incorporating a variety of scales of installations further south along the corridor will help to create a unique and vibrant public realm. Art can be integrated into public improvements such as benches, trash containers, street lights, signs, paving patterns, and gateways. An opportunity for a small-scale art installation would be to renovate and paint the historic railing over the Whitehead Highway. Simple gestures like this can further add to Main Street's character. An example of a large-scale installation would incorporating public art into the roundabout at Park and Main to create a gateway to downtown Hartford.







Implementation & **Phasing**

Since the inception of this project, the Hartford community has envisioned a Main Street corridor that is healthy and attractive to residents, businesses, and visitors. Such a bold vision can be difficult to carry out in practice. Understanding this, the redesign of Main Street was pragmatic and well thought out to cast a vision that could be brought to fruition. We understood that a total redesign of the corridor could impact right of way (ROW), utilities, and potential properties. Therefore, the approach was to avoid takings and impacts to utilities by staying within the curb. The result is a corridor redesign that can be implemented through a series of steps.

Several partnerships realized throughout the planning and design process will need to be leveraged. Partners like the City of Hartford, CTtransit, CTDOT, CRCOG, and business leaders like Travelers must collaborate to achieve success. This effort is made easier by outlining defined steps, or action items, to move the process forward. Defining the cost and potential funding mechanisms also forms a framework for implementation. From the outset of the study, a key objective was to develop cost-effective recommendations, at a variety of scales, that set the stage for additional improvements to Main Street in the future. Projects should focus on public spending that yields a return on investment from the private sector. The quality of private investment in both design and community amenities will have a profound impact on the attractiveness of the area, and successful and sustainable development will come only through a cooperative effort between public and private ventures.















Project Recommendations

With any existing corridor that requires retrofit, improvements can be implemented all at once or incrementally. To ensure the constructability of the concept design, the project team, along with the City and the Advisory Committee, broke down the corridor design into manageable projects. By separating this 4200-foot corridor into sections, it can be constructed on a prioritized timetable adaptable to the needs of the corridor, business community, residents, and users. The corridor is divided into the three segments, each reflecting "stand-alone" projects. Table 7.1 details the following segments.

- Asylum Street to Elm Street, 0.3 miles Including approaches
- 2. Elm Street to Fire Station, 0.3 miles
- 3. Fire Station to Wyllys Street, 0.15 miles

Segment	Description	Length (mi)
Asylum Street to Elm Street	Construct 10' wide cycle track on east side of Main Street. Bus platforms between Pearl Street and Gold Street. Bus Platform at stop between Wells Street and Elm Street. High visibility crosswalks at Asylum Street, Pearl Street, Gold Street, Wells Street, Elm Street. Construct planted pocket medians. Bulbouts (planted and concrete) at key intersections. Parallel parking along the corridor. Plant street trees. Install midblock crossing with RRFB between Pearl Street and Gold Street and between Gold Street and Wells Street. Pedestrian-scale lighting.	0.3
Elm Street to Fire Station Midblock Crossing	Construct 10' wide cycle track on east side of Main Street. High visibility crosswalks at Elm Street, Linden Place, Capital Avenue. Construct pocket medians. Brick pavers and high visibility crosswalk at Buckingham Street. Construct planted pocket medians. Planted (stormwater BMPs) and concrete bulbouts at key intersections. Parallel parking along the corridor. Plant street trees. Pedestrian-scale lighting	0.3
Fire Station Mid- block Crossing to Wyllys Street	Install HAWK signal at Fire Station midblock crossing. Construct 10' wide cycle track on east side of Main Street. Construct pocket medians. High visibility crosswalks at Wyllys Street. Parallel parking along the corridor. Plant street trees. Pedestrian-scale lighting. Construct single-lane round-about at Park and Main Street with traversable apron for large trucks and buses. Install gateway monument or public art in roundabout. Transition Cycle Track into existing bike lanes using bike boxes of two-stage left turn pavement markings at Wyllys Street.	0.15

Estimated Construction Costs

As the project segments were identified, project quantities were developed based on the Design Concepts using CAD design software. In turn, construction costs estimates were calculated using DOT standard unit costs values, depicted in Table 7.2 below. Right - of - way acquisition costs were not included as these are not expected to be significant. Also, a 10% design fee and 30% contingency were included in the cost assumptions. These estimates are for 2020 costs and subject to change over time. Table 7.3 on the following page provides a breakdown of the key construction elements for the Design Concepts.

Table 7.2: Hartford Main Street Estimated Construction Costs Summary				
Segment/Extent	Project Design Fee (Est.)	Project Construction Cost (Est.)		
Asylum Street to Elm Street	\$341,142	\$2,956,564		
Elm Street to Fire Station Midblock Crossing	\$201,720	\$1,798,280		
Fire Station Mid-block Crossing to Wyllys Street	\$344,413	\$2,984,909		
Barnard Park Improvements	\$110,153	\$954,655		
Miscellaneous Landscaping	\$75,000	\$650,000		
Total (Design Fee + Construction Cost)		\$10,416,836		









Table 7.3: Hartford Main Street Estimated Costs for Key Elements						
	Asylum Street to Elm Street	Elm Street to Fire Station Midblock Crossing	Fire Station Mid-block Crossing to Wyllys Street			
Resurfacing	\$180,000	\$180,000	\$150,000			
Pedestrian Lighting	\$348,480	\$348,480	\$264,000			
Stormwater BMPs	(3) \$150,000	(3) \$150,000	(1) \$50,000			
Bus Shelters and Amenities	\$698,230	\$214,840	\$53,710			
Sidewalk Rehab	\$82,500	\$45,000	\$15,000			
Curbing (Medians and Sidewalk)	\$105,050	\$87,500	\$160,000			
Concrete Bus Platforms	\$37,500	\$4,500	\$6,750			

Top 5 in 5

To initiate the implementation process, five projects (transportation, placemaking, and development) with the most transformative potential have been identified that should be implemented over the next five years.

Construct a one-lane roundabout gateway at Park Street.



Upgrade and enhance Barnard Park.



Install 10' cycle track with bus platforms from

Wyllys to Asylum Streets.



Complete road and streetscape improvements from Park Street to Asylum Street.



Provide financial incentives to businesses and developers to reinvest along Main Street.









Policy Action Items

Policy recommendations are included to provide guidance to practitioners and policymakers so they may be mindful of the new vision for the Main Street corridor. The corridor has been challenged for many years. If change is to occur, it must include thoughtful policy changes that not only allow this transformation, but, encourages it from public and private stakeholders. In order to guide development while maintaining the integrity of the corridor vision, guidance and policy are needed to ensure positive change occurs. Private and public development actions must be designed to coordinate with these objectives for the corridor to work in the ways that the public and stakeholders suggested. The following policy measures outline potential tools that can be used by the City to guide future development along this corridor. Applying these recommendations, whether through ordinances, design standards, or policy modifications, would typically require partnership between landowners, developers, the City of Hartford, the MPO, and CTDOT.

Start a financial incentives program

Tax incentives and facade grant programs may be a catalyst for attracting local, sustainable businesses. Local investments usually attract local business, encouraging them to relocate to or stay on Main Street.

Create higher-density housing options nearby.

Work with the development community to increase density, both around the Park Street/Barnard Park area as well as other locations throughout.

Add pedestrian and cyclist level signage along Main Street.

Walkability and bikeability will make navigation key. Wayfinding, especially signs that are uniquely Hartford, will help. Lettering should be highly visible for the visually impaired.

Require plantings and landscaping maintenance for new development.

City ordinances and regulations should be updated to require plantings and landscaping maintenance, as well as to ensure consistency with this Plan's vision.

Development Incentives

New development and redevelopment are occurring around the City; the Main Street corridor has already seen new construction and will continue to do so. In preparation for this, writing new policies that include development incentives for incorporating green infrastructure in site plans should happen quickly. Incentivizing stormwater regulation and infrastructure encourages developers to creatively address on-site management. In exchange for improvements, the standards and requirements of which must be determined by the City for rewards. Benefits can include things like zoning upgrades, expedited permitting, and reduced stormwater requirements. Portland, Oregon has seen success with their development incentive program: Portland's Ecoroof Floor Area Ratio Bonus produced 130 projects constructed between 2008 and 2012 and created more than 8 acres of ecoroofs. Capitalizing on this continued success, Portland recently included an ecoroof requirement for all new buildings larger than 20,000 square feet in their Central City 2035 Plan.

Rebates & Installation Financing

Individual property owners can be encouraged to add green infrastructure projects to their property by submitting for a City sponsored rebate and installation financing program. Homeowners can be directly refunded for the cost of installing rain barrels or rain gardens, or they can be given incentives for adding rain gardens or disconnecting downspouts. This approach can be fitted to the specific needs of the City and can identify areas or properties where on-site management would be most beneficial to the maintenance of the stormwater system and offer larger incentives for property owners in those areas, in addition to specifying the type of infrastructure that is applicable and appropriate design and planting standards. As an example, Santa Monica offers the Cash for Grass Rebate program to encourage property owners to plant climate appropriate plants and incorporate rain harvesting infrastructure on their property. The city provides free consultations, and the program is set up for applicants to apply prior to starting, and schedule a final inspection upon completion.



Ecoroofs, also known as green roofs, can capture and use rainwater before it enters the city stormwater system, reducing runoff and environmental impacts.



Santa Monica's Cash for Grass rebate program is among the city's most successful incentive programs.









Financing & Incentives

In order to see this Plan to fruition, construction design and implementation needs to be financed. The City and/or MPO should take opportunities to leverage local funds to access state, federal, and private funds in order to achieve this vision. The following are several funding sources to help with moving this effort ahead.

Capitol Region Council of Governments (Metropolitan Planning Organization)

Regional Government Funding

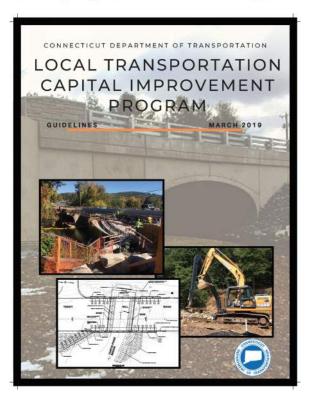
The Capitol Region Council of Governments (CRCOG) administers the State Transportation Improvement Program (TIP), and Surface Transportation Block Grant Program (STBGP). The funds for these programs come from the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) for use on roadway projects evaluated and submitted by CRCOG staff. The TIP is updated every two to three years. Once considered and approved by the Policy Board, the funds are committed for project implementation.

Connecticut Public Act 13-239 was signed into law in June 2013, directing the Connecticut Department of Transportation (CTDOT) to create a state funded **Local Transportation Capital Improvement Program (LOTCIP).** LOTCIP provides municipalities with funding and to supplant federal funds offering opportunities for improved project delivery. The program provides State funds to municipal governments through Councils of Government for transportation projects of regional significance, including reconstruction, pavement rehabilitation, sidewalk, bridge, intersection improvement and multi-use trail projects.

The Transportation Alternatives (TA) Set-Aside program is designed to help expand transportation choices and enhance the transportation experience. Federal regulations define categories of eligible activities encompassing a variety of smaller-scale transportation projects such as pedestrian and bicycle facilities, recreational trails, safe routes to school projects, community improvements such as historic preservation and vegetation management, and environmental mitigation related to storm water and habitat connectivity.



Working together for a better region.



Connecticut Department of Transportation (CTDOT)

State Government Funding

State and Federal Funding are often administered together, with the federal government releasing funds to each state based on need and availability. While amounts of funding remain fairly stable over time, the distribution of this funding varies depending upon federal policies and programs, which change with the transportation authorization bill. During the course of this study, the Biden Administration has proposed a new infrastructure plan, with new transportation funding dedicated to bicycle and pedestrian initiatives, including Complete Streets. Once law, the details of this new legislation should be examined for funding sources to support this Plan.

Statewide roadway improvement funds are allocated through the State Transportation Improvement Program (STIP) which is federally required and covers a six-year period, but it is updated annually. Other CTDOT applicable funding programs may include:

The <u>Community Connectivity Grant Program (CCGP)</u> is an infrastructure improvement program that seeks to provide construction funding for local initiatives that will improve the safety and accessibility for bicyclists and pedestrians in urban, suburban and rural community centers. These community centers serve as places where people can meet for employment, educational, social and recreational activities.



Innovative Transportation Finance

Public-Private Partnerships are designed to accomplish a combination of goals related to economic and community development efforts, some of which have been identified in this plan. Public funds must only be made available to those projects determined otherwise unfeasible or unachievable "but for" the combined efforts of public and private participation. The overlay district boundaries should outline areas within the town determined to be key economic growth areas. The projects must comply with community adopted standards and program guidelines established for that area.











Change is always difficult to initiate.

Through the efforts of many, a Main Street Vision has been created that embodies a healthy, attractive and vibrant place. The completion of the plan marks the beginning of action.

Yet the hard work is not done.

To keep this momentum going, continued engagement, open transparency, and proactive involvement will be needed from all involved. It will require champions and advocates to bring this vision to reality. Through this collaboration, Main Street can once again become an asset for all of the Hartford community as an active street to live, work and play.

"Never doubt that a small group of thoughtful, committed, citizens can change the world. Indeed, it is the only thing that ever has."

— Margaret Mead